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SECOND INTERNATIONAL CONGRESS
ON SCHOOL HYGIENE
LONDON AUGUST 5TH—10TH 1907

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SCHOOL INSTITUTIONS AND SCHOOL HYGIENE IN THE GRAND DUCHY OF FINLAND

HELSINGFORS,
LILIUS & HERTZBERG.

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SCHOOL INSTITUTIONS AND SCHOOL HYGIENE IN THE GRAND DUCHY OF FINLAND

COMPILED BY

A. PALMBERG

IN COOPERATION WITH

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Isothermes of Finland
1881—1890.
Luleå
Pitea
Skellefte
Uleåborg
Kajana
Umeå
Nikolaistad
Kristinestad
Nurmis
Joensuu
Sordavala
Nystad
Lovisa
Kotka
Viborg
Ladoga
Hangö
Reval
-1
0
+1
+2
+3
+4
+5

I. GENERAL REMARKS.

The Country.

Finland — in Finnish Suomi — is situated between 59° and 70° N and between 21° and 32° E of Greenwich. The two great gulfs of the Baltic surround it, the Gulf of Bothnia in the W and the Gulf of Finland in the S; in NW Finland borders on to Sweden and Norway and in the E on to Russia.

Finland has an area of 379,495 square kilometres. The coast has a length of 1,400 kilometres and is, especially in the SW and S, cut into a number of bays and points, outside which an archipelago of innumerable islands and rocks spreads itself out. This archipelago has its greatest extension in the SW, in the direction of Sweden, and is terminated by the large group of islands called Åland.

The mainland is dotted over with a great number of lakes in fact these comprise 12 % of the whole area.

The country is very undulating, but the hills, which consist principally of granite rocks, that have been polished during the glacial period, and also of gravel, do not reach to any great height. This varies between 200 and 1,250 metres. In consequence of its formation, the country has a number of cascades, among which *Imatra* — one of the greatest in the world, being 19 m high and 875 m long — is visited by a number of tourists. In other respects too the country has to show surprising pictures of natural beauty.

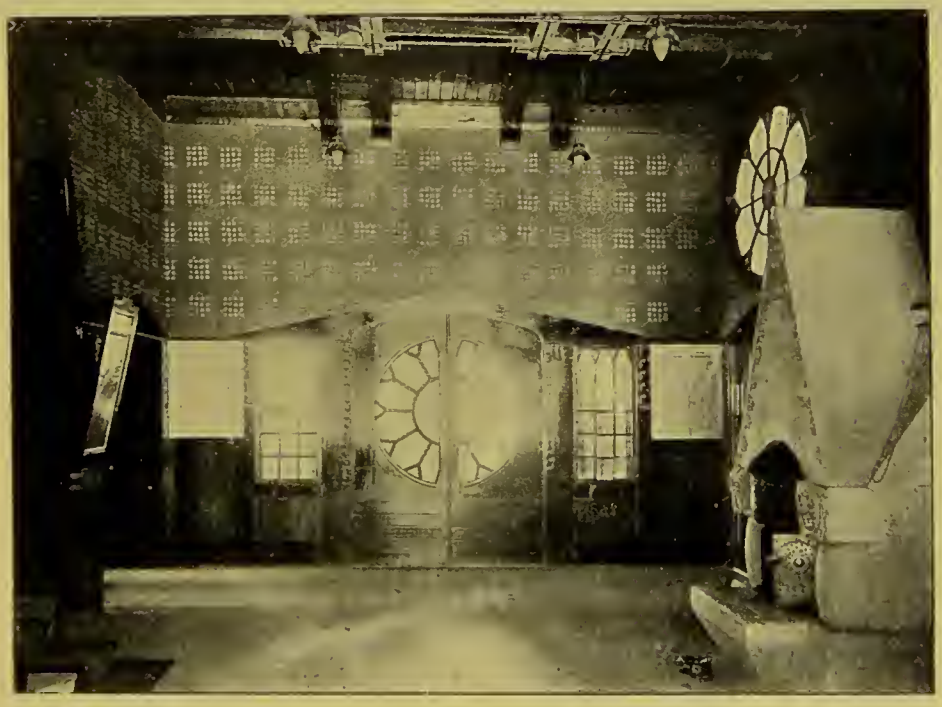
Imatra cascade with the tourist's Hotel.

The climate is rather mild, considering the very northern situation of the country. Of all countries with the same latitude only the Scandinavian peninsula has a milder climate. But, on account of Finland's great extension in N and S, the climate varies in a high degree in the different parts, as is seen from the Isothermical chart.

A remarkable difference between the climate near the coast and the inland climate is noticed. The average temperature in the Capital of the country, Helsingfors, lying on the Gulf of Finland, 60° 20′ N and 25° 50′ E, is the following during the twelve months of the year:

January	— 6,66°	Centigrade
February	— 7,89°	»
March	— 3,96°	»
April	+ 1,16°	»
May	+ 7,66°	»
June	+ 13,86°	»
July	+ 16,78°	»
August	+ 16,06°	»
September	+ 10,72°	»
Oktober	+ 5,60°	»
November	— 0,14°	»
December	— 3,88°	»

Imatra Hotel. Dining-room.



Imatra Hotel. Hall.

Vue of Kangasala.

Nokia.

The winds most prevalent are S and SW.

On account of the surrounding sea and the number of inland lakes, the rainfall is sufficient. Helsingfors has on an average 162 rainy days, with a fall of rain of 550 mm. There is generally less fear of a drought than of too much rain, and a bad harvest in Finland is almost the result of a wet and cold summer, which delays the ripening of the crops and leaves them at the mercy of the autumn frosts.

The people.

The population of Finland was 2,963,498 persons at the end of 1906. Of these, 382.373 were Swedes and 2,581,125 Finns.

The Swedes, who were the first pioneers of culture in

Thermopyle (near Tammerfors).

Helvetinkolu (Virdois).

Finland, came into the country about the middle af 1100. They live principally near the coast and on the islands, S from 64° N to 27° E. With the Christian faith the Swedes brought into the country a free constitution with personal liberty and proprietary right. Slavery or thraldom has not existed in Finland since 1335.

The Finns are supposed to have come into the country during the 7:th and 8:th centuries. On their entrance, the Lapps, who were then living a nomadical life all over the country, were driven to the N and there remain at the present day only about 1500 of them N of 68° latitude.

The Finnish population, which belongs to the Turanic race, has the same western culture as the Swedes. A national peculiarity of the Finns is their primeval national poesy, the

principal example of this being the grand epic, called the *Kalevala*. The religion is the Lutheran, but liberty of faith is admitted.

Political conditions.

As has already been mentioned, the conquest of Finland was commenced by the Swedes in the middle of the 12:th century. During the Napoleonic reversions Finland was torn away from Sweden and united with Russia in 1809. While united with Sweden, the population of Finland collaborated with the Swedes for the development of free constitution and democratic laws, which Finland enjoyed at the time of the separation from the mother country. The Emperor of Russia, at the time Alexander I, made a solemn declaration to the Diet in Borgå, on March 27:th 1809, to maintain inviolate this constitution, according to the fundamental laws of 1772 and 1789, as well as the privileges and liberty of the people.

As this declaration must be considered as binding for all time, all the successors of Alexander I have, on their accession to the throne, signed the same. The Emperor of Russia is, therefore, constitutional Grand-Duke of Finland.

The violent attempts, the autocratic party in Russia have made ever since 1899 to deprive Finland of its independant position, have been annihilated by the Imperial Manifest of November 4:th 1905. The oppression, during this regimen of violence, called forth a strong reaction at its close, which led to a reform of the representation from the system of four chambers of representatives to one chamber, to which every man and woman from 24 years of age is eligible and entitled to one vote.

Finland is governed by a Senate in the name of the Emperor Grand-Duke. The Senate has two departments, the Economy Department for the administration and the Law Department for legislative affairs in the highest instance. The Procurator, who is the highest guardian of the laws, also counts as of the Senate, and attends to, that all verdicts are pronounced in accordance to Finnish law. All members of the Senate, as well as all other government officials must be Finnish subjects, according to the fundamental laws.

The representative of the Emperor in Finland is the Governor-General, who may be a Russian subject, but all the members of his office, as well as all members of the Finnish State Secretary's office in Petersburg, must be Finnish subjects, according to the fundamental laws. The Secretary of State for Finland must be a Finnish subject, who has a thorough knowledge of the conditions and administration of the country.

The country is divided, in regard to administration, into 8 provinces (län), each ruled by a governor. Each province is divided into hundreds (härad) and the hundreds into parishes (kommun). The number of hundreds is 51 and that of the parishes 510, of which 38 are towns and 472 country parishes.

Finland has its own finances and its own mint, weights and measures conformably with the French metric system. The metallic standard is gold, the monetary unit, the mark, is in value the same as the French franc.

Since 1749 detailed vital statistics are made out. These, as well as the statistics from all branches of the administration, are worked out by the Central Statistic Bureau in Helsingfors, organized in 1865 for this purpose.

All questions belonging to the different parts of administration as Schools, Health, public Architecture, Agriculture etc. are managed by special boards or councils.

Communications.

The Finnish railways have at present a total length of 3,429 kilometres. New railways are being built every year, at present a length of between 300 and 400 kilometres, among others a line, stretching up to the Arctic circle along the river Kemi. Of these lines 3,146 kilometres belong to the Finnish government and 283 to private companies.

Along the coasts and on the inland lakes a lively steamer traffic is kept up. Sailing-, rowing- and motor-boats are also common all over the country. Many of the lakes are connected with one another by canals to facilitate the traffic, the principal one being the *Saima* canal, which connects the large

Harbour of Åbo.

Harbour of Hangö

lake Saima (1600 sq. kilom.) with the open sea at Wiborg. The height of the lake above sea level is 76,2 m, the length of the canal 59,3 km, whereof 32 km are either dug out or blasted through solid rock. There are 27 locks.

Through this canal direct communication is kept up with foreign parts from the interior of the country up to 63° N.

All over the country innumerable highways are to be found, connecting towns and parishes, as well as the separate parts and villages of the latter with one another. Only in the furthest Lappland the communications are, as yet, unsatisfactory, partly on account of the formation of the land, partly on account of the few inhabitants. The communications in Lappland are kept up in summer principally on the rivers by boat, in winter over lakes and swamps with reindeer.

Finland's mercantile fleet comprises at present about 700 steamers and about 3000 sailing vessels. A regular traffic is kept up from Finland with Russia, Sweden, Germany, Denmark, Great Britain, Holland, Belgium, France, Spain and Portugal. Finnish merchant vessels sail on every sea.

The traffic to foreign parts is now kept open all the winter from the two winter harbours, Hangö and Åbo. Ice hinders are surmouuted by means of strong ice breakers. The winter steamers are also all constructed to cope with ice.

Finland having no trading flag, all Finnish ships fly the Russian colours.

Trade.

Finland's principal trade is agriculture, 80 % of the inhabitants having their work from this. The landed property is divided into crown land and land belonging to peasants. The latter belongs to the owner with full right of domain; it may be divided, sold, given away and mortgaged. The right of domain to the crown land is also inheritable, and the owner can also obtain the right to redeem it on very favourable conditions. Over 20 million hektars are owned by independant peasants. The cultivated land of Finland amounts to about one million hektares. The rest is either areable land, forest, lakes or land not cultivable.

The principal agricultural products are rye, oats, barley and potatoes. The map shows how far the different cereals go.

The forests cover 64 % of the land. The principal trees are pine (Pinus sylvestris), to 69° 30′, spruce (Abies excelsa), to 68° 45′, birch (Betula alba), alder (Alnus incana and A. glutinosa) and over 20 species of willow (Salix). Birdcherry (Prunus padus), quicken-tree (Sorbus aucuparia), juniper (Juniperus communis) and aspen (Populus tremula) are common. The most scarce are oak (Quercus pedunculata), maple (Acer platanoides), elm (Ulmus campestris) and ash (Fraxinus excelsior).

Among other trades those stand foremost, that get their raw material from farming, as for instance dairies for the production of butter and cheese. In 1905 not less than 15,937,400 kilos of butter were exported, most of it to England. Of other goods, belonging to this class of trade, were exported: 6,095,771 cubic metres of timber, 60,544,300 kilos of pulp and 54,739,800 kilos of paper.

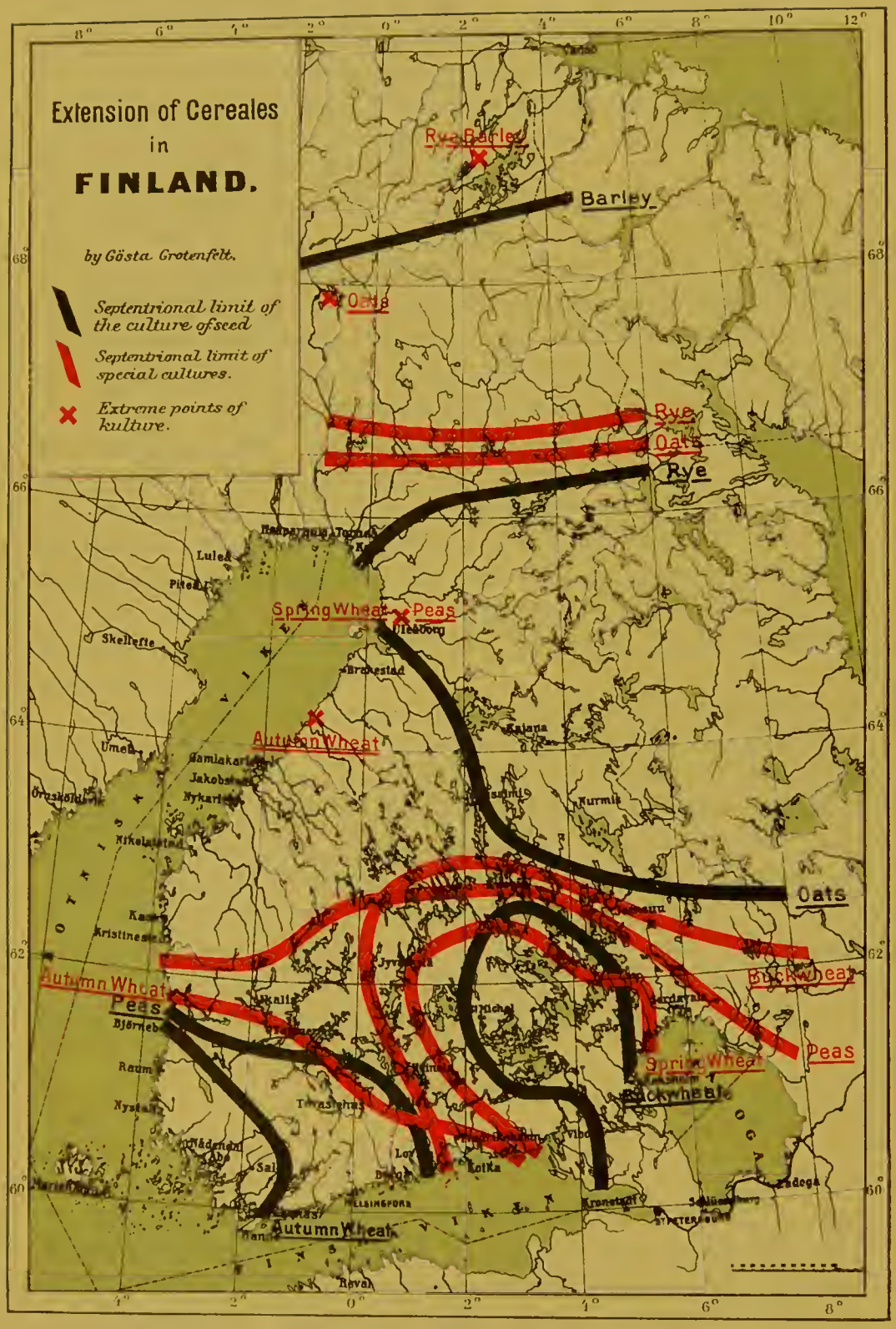
The export of iron- & metal-ware, has been 13,198,900 kilos, most of it to Russia.

Of other exports may be mentioned linen- and leather goods, cattle, meat, fish, crayfish and rye (to Sweden), oats (to England), lamp-black, leather, stone for building purposes and paving stone etc.

Among trades that are based upon foreign raw material, may be mentioned cotton mills with a total production of Fmk 28,100,000, sugar mills and tobacco factories.

Schools.

The question of compulsory school-attendance is the order of the day. However, most people in Finland can read, as there is a law, which says that all Lutherans, who want to marry, most be able to read. Only a few persons, suffering from physical defects, and about 50 % of the population in the few most Eastern parishes, where the people are Greek orthodox, are illiterate. There are people's schools in every parish. Manual labours and gymnastics are also taught in all these. The parish builds and keeps up the schools and pays the teachers. The government contributes 25 % of the cost


Extension of Cereales
in
FINLAND.
by Gösta Grotenfelt.
Septentrional limit of the culture of seed
Septentrional limit of special cultures.
Extreme points of kulture.
Rye Barley
Barley
Oats
Rye
Oats
Rye
Spring Wheat
Peas
Autumn Wheat
Oats
Buckwheat
Autumn Wheat
Peas
Peas
Spring Wheat
Buckwheat
Autumn Wheat
Lulea
Pitea
Skellefte
Umea
Gamlakarleby
Jakobstad
Nykarleby
Nikolaistad
Kristinestad
Björneborg
Raum
Nystad
Mädsnäs
Abo
Sal
Helsingfors
Reval
Kotka
Kronstadt
Petersburg
Ladoga
Kajana
Kuopio
Jyväskylä
Tavastehus
Viborg
Kurmis
Lappmarkens Torneå
Brahestad
Uleåborg
Orusskölds
Ostrobothnia
Finland
Estonia
Livonia
Ingria
Karelia
Savolax
Tavastland
Nyland
Tavastehus
Lappmarken
Vibo
Ladoga
Petersburg
Helsingfors
Kronstadt
Reval
Kotka
Abo
Sal
Nystad
Raum
Björneborg
Kristinestad
Nikolaistad
Nykarleby
Jakobstad
Gamlakarleby
Umea
Orusskölds
Skellefte
Pitea
Lulea
Kajana
Kuopio
Jyväskylä
Kurmis
Uleåborg
Brahestad
Lappmarkens Torneå
Tavastehus
Viborg
Ladoga
Petersburg
Helsingfors
Kronstadt
Reval
Kotka
Abo
Sal
Nystad
Raum
Mariehamn
Nikolaistad
Kristinestad
Jakobstad
Nykarleby
Gamlakarleby
Umea
Orusskölds
Skellefte
Pitea
Lulea
Lappmarkens Torneå
Brahestad
Uleåborg
Kajana
Kuopio
Jyväskylä
Kurmis

of people's schools in the towns. On application, the government contributes also to the people's schools in poorer parishes. Education at these schools is almost free of cost.

There are 8 training schools or seminaries for the education of teachers, two being for men and women, three only for women and three only for men.

In every province there are people's high schools, at present 31 altogether.

The secondary schools for higher education are divided into classical schools and modern schools (»real»-schools). Both lead to the University. Higher education for girls is given in state-schools, as well as in private schools, supported by the government. The greater part of the latter are so called mixed schools, where girls and boys are educated together, in courses which lead to the University.

The schools of Finland are surveyed and ruled by a General School Board (Öfverstyrelsen för Skolväsendet), with one department for people's schools and one for secondary schools.

The higher education is completed at the University in Helsingfors, which counts at present about 2,500 students, whereof about 500 female.

Besides the University, where professional education is given in the different humanistic and practical branches of science, there is a polytechnical Institute for higher technical education, a number of industrial Schools, artisan Schools, Schools of mechanical art, commercial Schools, agricultural Schools, Schools of forestry, navigation Schools, Schools for artists, Schools for music, Schools for abnormals etc.

Instruction is almost free of cost at all state schools, as well as at the University. The pupils of the private, state-subventioned schools pay a very moderate free.

Public Health.

Instruction in hygiene is given at the University. All medical students are obliged to attend the courses in this science and to obtain certificates of the necessary knowledge of the profession. In the seminaries for people's school teachers instruction in the principles of hygiene is given.

The highest supervision of the public health as well as over the whole medical institution belongs to the General medical Council (Öfverstyrelsen för medicinalväsendet), consisting of one Director-general, three Medical Councillors, one member for the veterinary and one for the pharmaceutical department.

The country is divided into 53 medical officers districts. The duty of medical officers is to supervise the public health in their districts and accordingly also in the public schools. They are salaried by the government. Parish doctors attend to the private hygiene and their salary is paid one half by the parish and one half by the government.

The town medical officers are salaried by the town. The public health and medical attendance in town come under the board of health of the town. In greater towns there is a special Public Health Service (Hälsovårdsbyrå), of which the principal Medical Officer is the Chairman. To the Health Service belong a Laboratory, Sanitary Inspectors, Surveyors etc.

In country parishes the public health is supervised by the vestry with the district medical officer as chairman.

The health in the people's schools in town is attended to by the inspectors of these schools, who subordinate and report to the town school board, elected by the town. Where sanitary measures are necessary, these are referred to the public health service.

The private school hygiene, touching the health and resisting power of the several school children, is superintended by school doctors, who are chosen by the town or by the separate schools and subordinate under the School Boards or directions of the private schools.

In the rural parishes the school hygiene is superintended by the district medical officers and by the inspectors of the people's schools, salaried by the government.

The general hygiene in Finland is managed in accordance with the Public Health Act of Dec. 22:nd 1879. Beyond the general orders this Act obliges every town and parish to have its own byelaws according to the local conditions and wants in respect of the supervision of dwelling-houses, sewerage and drainage, offensive trades and other matters pertaining to the public health. These local bye-laws are ratified

by the Governor of the province after hearing the General medical Council.

Sanitary regulations are also included in the law on vaccination, which is compulsory, the laws on protection of workmen in the industrial professions, which are supervised by special inspectors of works, in the building and police regulations etc.

A. Palmberg.

II. SCHOOL HYGIENE.

1. School Buildings.

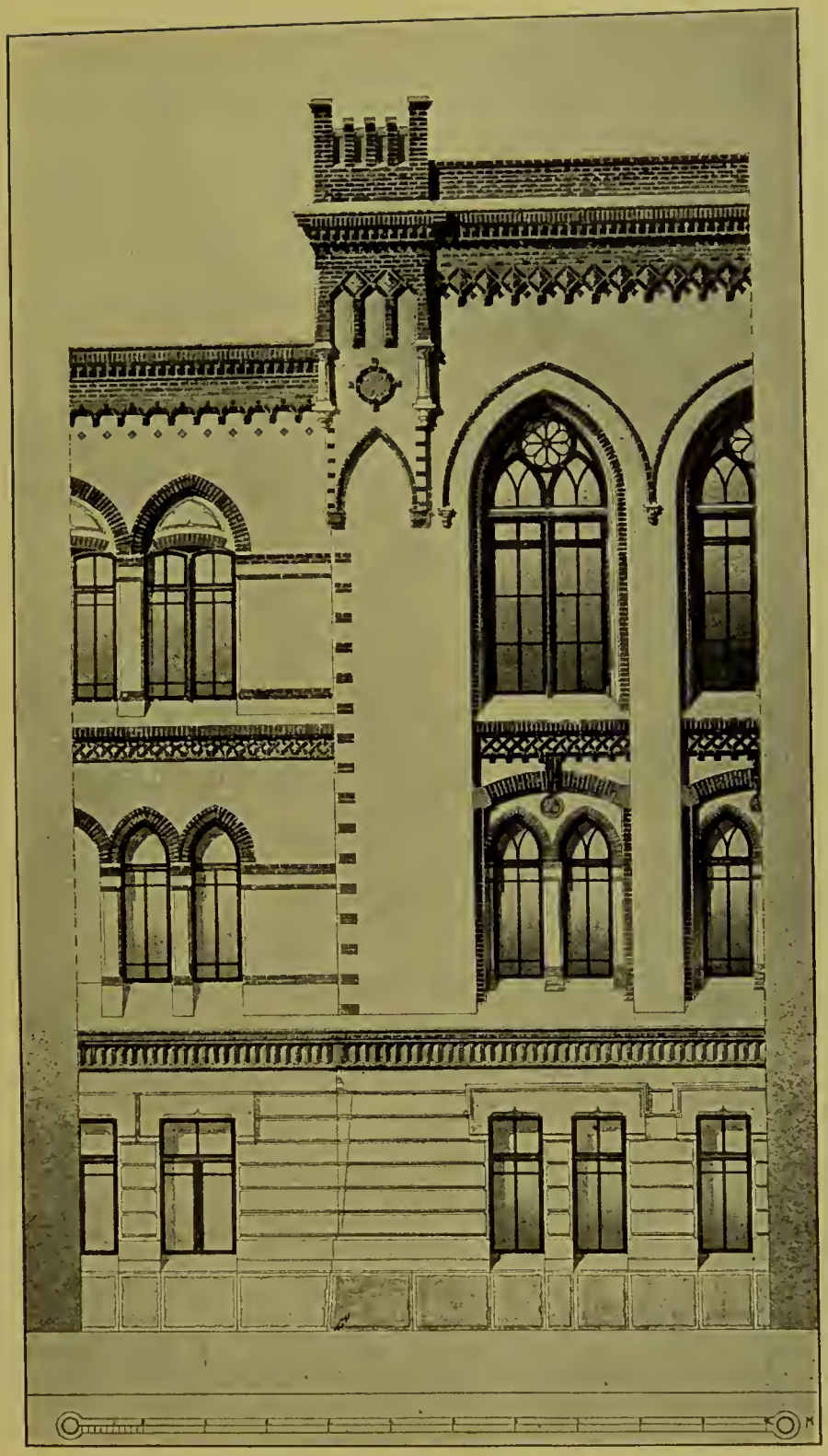
Of school buildings, those for secondary schools, training colleges for people's school teachers and the majority of special schools, are built at the expense of the Government from drawings made by the *General architectural Council in Finland.* The people's schools are built by the parishes — in the country partly with Government subvention — generally from model drawings, made for the purpose on Government initiative. A number of people's school-houses in the towns are built from drawings, that have been awarded prizes in public competitions.

Classical Schools and modern Schools.

As examples of the construction of school buildings in Finland, built by the Government, may be taken the following description of 10 secondary schools, given in the report of the General architectural Council for the years 1900—1903 and made by the First Architect *Jac. Ahrenberg,* who is the specialist of the Board for school buildings.

Site and Construction.

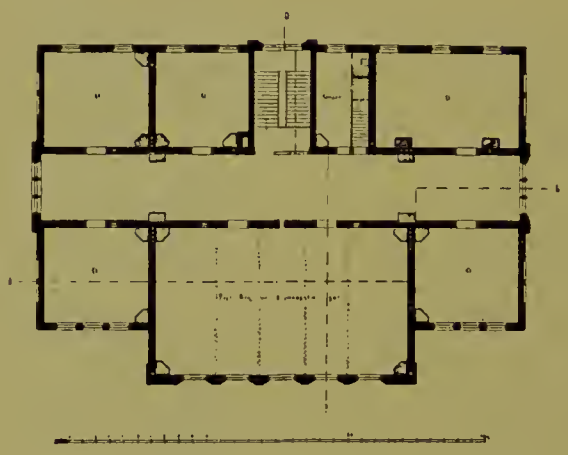
The site of the Swedish model school in Helsingfors has an area of	4,592,7 sq. metres
The site of the Swedish girls school in Helsingfors has an area of	5,622,5 » »



Finnish »Real» School. Sordavala

Finnish »Real» School. Sordavala. I Floor.

Finnish »Real» School. Sordavala. II Floor.

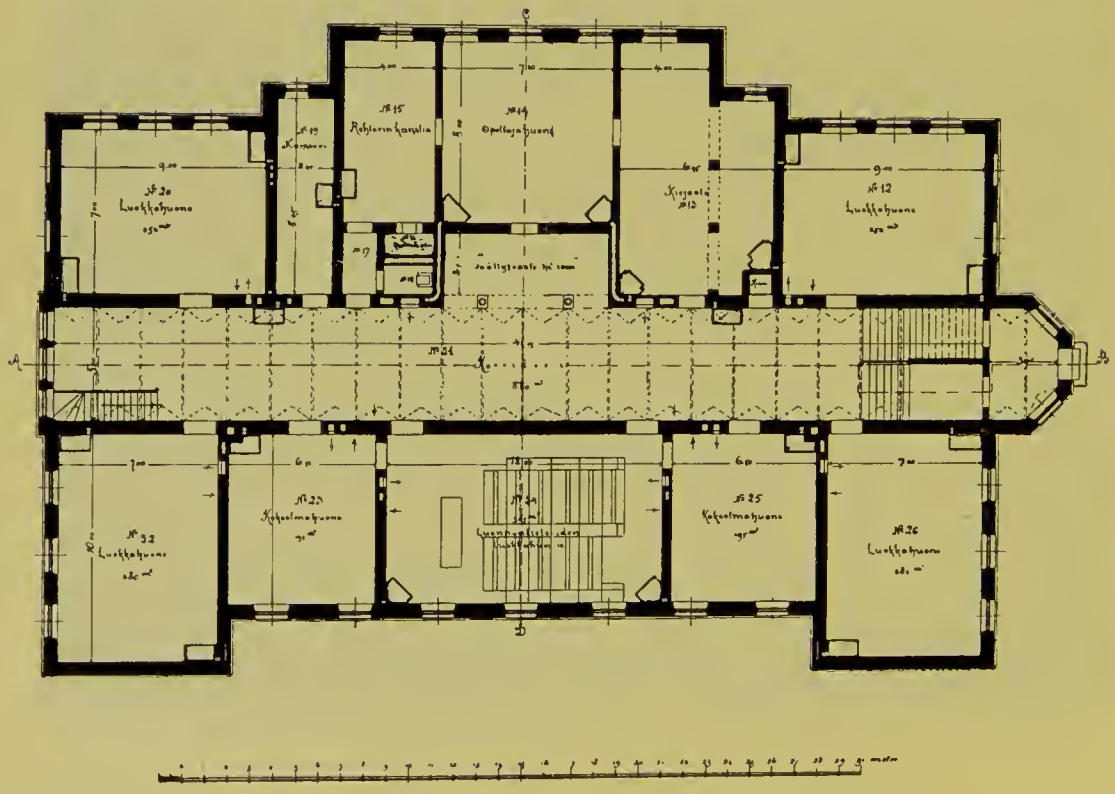


Finnish »Real» School. Sordavala. III Floor.

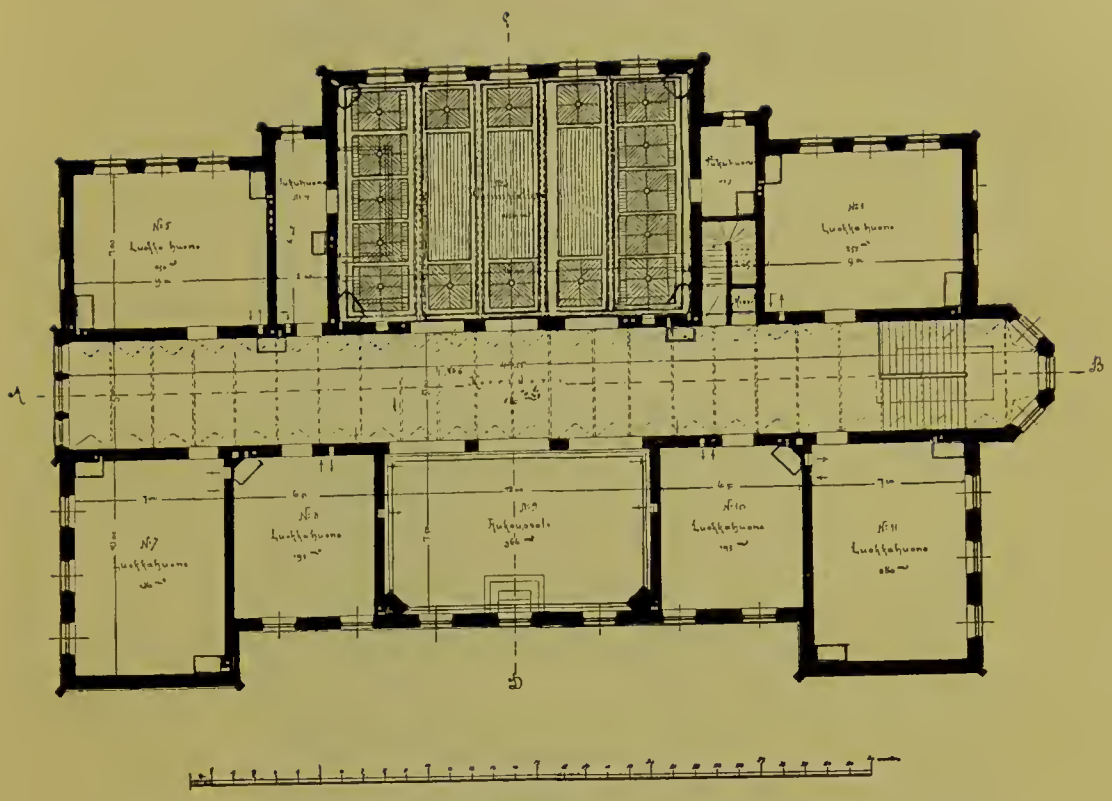
The site of the Swedish moderne (»real») school in Helsingfors has an area of .	2,634,9	sq. metres
The site of the old Finnish model school in Helsingfors has an area of	2,594,9	» »
The site of the Finnish girls' school in Uleåborg has an area of	2,574,0	» »
The site of the modern (»real») school in Sordavala has an area of	7,199,5	» »
The site of the modern (»real») school in Wiborg has an area of	4,603,5	» »
The site of the new Finnish model school in Helsingfors has an area of	2,870,0	» »
The site of the Swedish girls' school in Åbo has an area of	3,600,0	» »
The site of the Finnish classical school in Jyväskylä has an area of	6,603,0	» »

Finnish Classical School. Jyväskylä.

Finnish Classical School. Jyväskylä. Hall.



Finnish Classical School. Jyväskylä. I Floor.



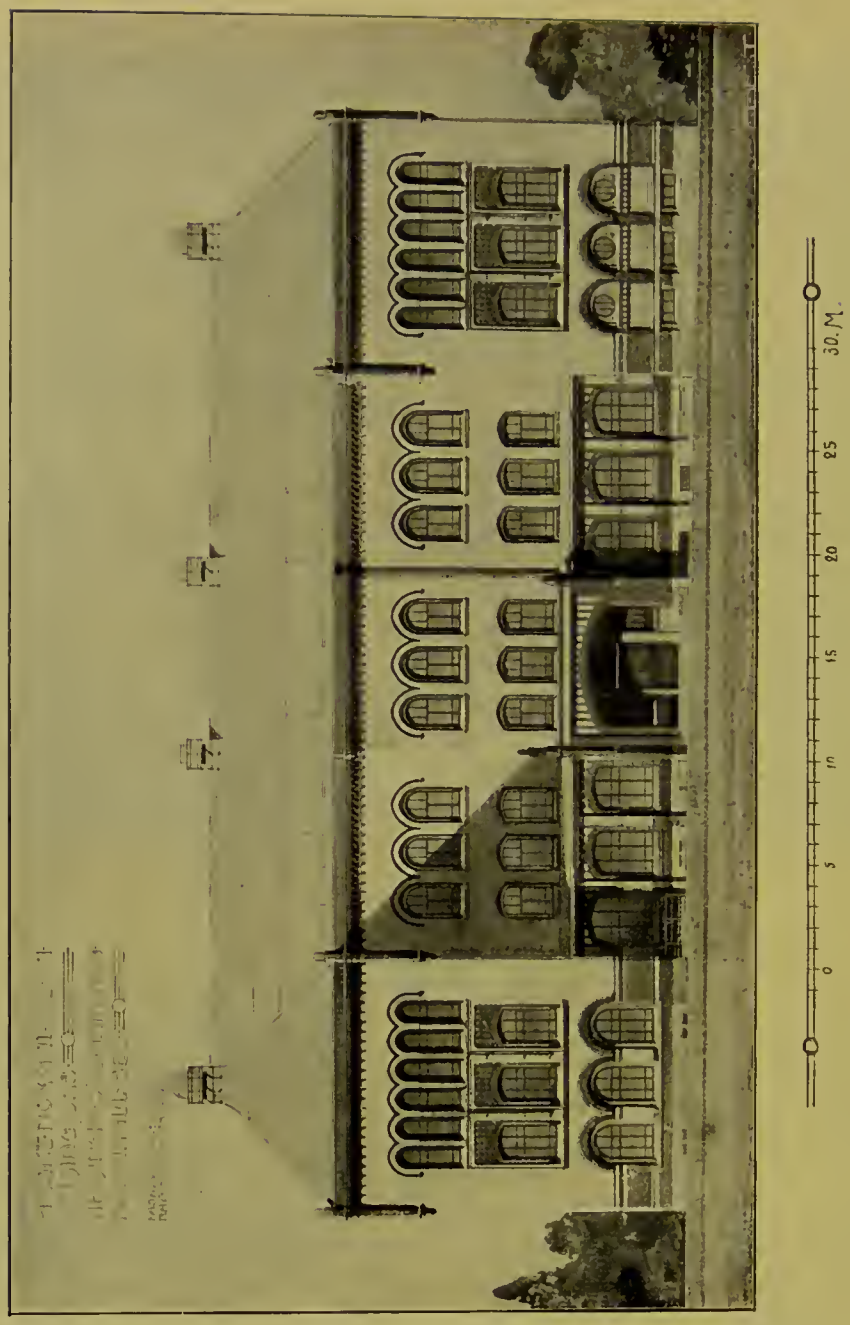
Finnish Classical School. Jyväskylä. II Floor.

The schools generally lying close to public parks or squares, where the pupils are allowed to move freely during the intervals between lessons, and the free ground of the school sites being used as play-ground and for gymnastics, the pupils have plenty of room to move about in.

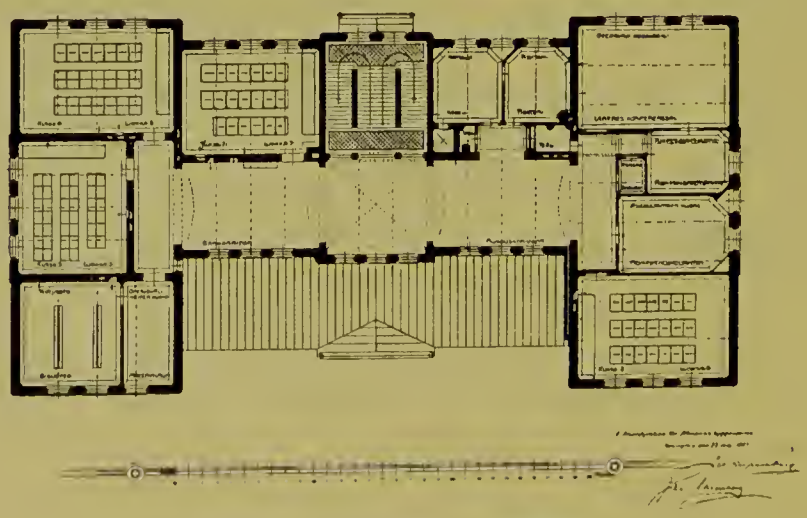
The buildings for the above named schools are made of brick in two or three stories. In places, where bricks are expensive, comparatively large school buildings have been erected with the lower story of bricks and the upper one of timber. Smaller school buildings are generally built of timber in one story.

The floors are of white pine, jointed and rabbetted with frieze-boards round the walls. Shortenings alternatively in the one and the other end of the room. The nails are driven in from the side of the plank. The floors are varnished. The greater number of the schools have asphalted floors in the corridors.

The floor-filling is generally of sandmixed clay, dried on an iron plate and heated to 100° Cent. Under this filling is first laid fine-cut straw or moss (Sphagnum). The boards of



Finnish Model School. Helsingfors.



Finnish Model School. Helsingfors.

the dead floor under the filling are covered with asphalted paste-board. The filling is 30 centimetres high.

In the class-rooms facing North the *outer wall* is panelled on the inside with boards, if pupils are obliged to sit 0,75 metres from it. Besides, the walls in all the class-rooms have panelled walls to a height of 1,5 – 2 metres from the floor. The walls above this panelling are painted with lime-wash or distemper in light red, yellowish red or green warm colours. Rooms towards the sunny side are painted in colder tones. The corners in the rooms are rounded off.

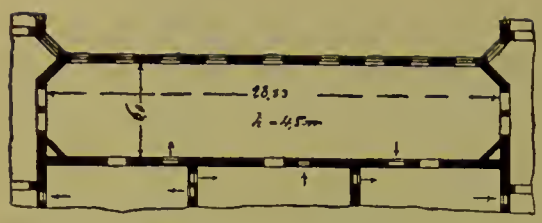
The ceilings are either plastered and white-washed or else panelled with narrow boards.

The windows are double and hinged, the distance between the inner and outer windows being 15 cm. The frames are packed all round with cow-hair. The top of the windows is placed as near the ceiling as possible and the recess is widened towards the room. In the following schools the window-surface compared to the floor space is:

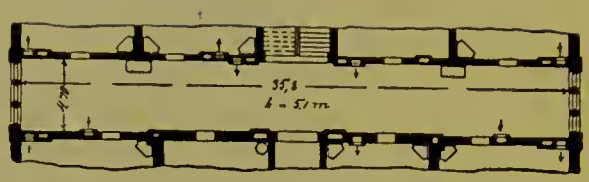
Swedish model school in Helsingfors . . .	$^1/_5$ of floor space
» girls » » » . . .	$^1/_5$ » » »
» modern (»real») school in Helsingfors	$^1/_6$ » » »
Finnish girls school in Helsingfors . . .	$^1/^5$ » » »
» » » » Uleåborg . . : .	$^1/_6$ » » »
» modern (»real») school in Wiborg .	$^1/_7$ » » »
» » » » » Sordavala	$^1/_7$ » » »
New finnish model school in Helsingfors .	$^1/_5$ » » »
Swedish girls school in Åbo	$^1/_5$ » » »
Finnish classical school in Jyväskylä . . .	$^1/_7$ » » »

The outer stairs are low, preferably of granit and provided with foot-scraper. They are at least 2 metres wide. *The inner stairs* are nowhere under 1,76 m wide. The hall is light, the landings roomy, the stairs are of fire-proof material and in girls' schools the steps are covered with wood.

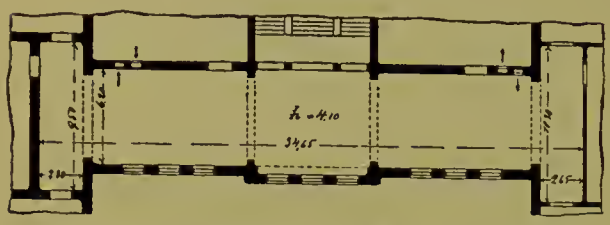
The corridors are either side-corridors with windows on the one long wall, or middle corridors, with windows on both short walls. The length and width of the corridors in the 10 following schools are:



Side Corridor. Swedish Real School. Helsingfors.



Middle Corridor. Finnish Classical School. Wiborg.



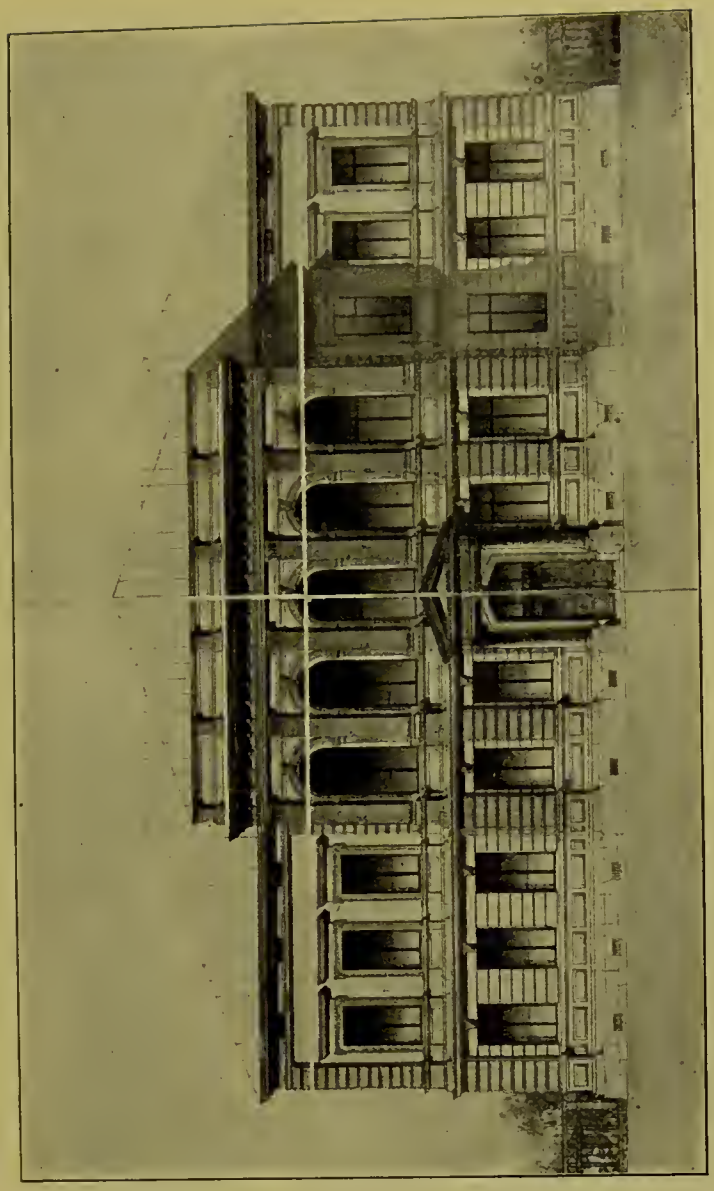
Side Corridor. Finnish Classical School. Helsingfors.

Partly Middle Corridor. Finnish Girls School. Helsingfors.

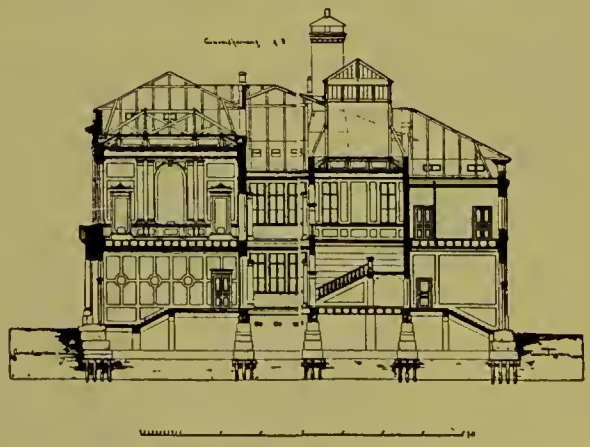
Swedish model school in Helsingfors	length	39,5	m,	width	4,95 m
Swedish modern (»real») school in Helsingfors	»	28,8	»	»	6,00 »
Swedish girls school in Helsingfors	»	53,7	»	»	5,05 »
Finnish girls school in Helsingfors	»	23,5	»	»	5,00 »
Finnish girls school in Uleåborg	»	34,4	»	»	4,50 »
» modern (»real») school in Wiborg	»	33,0	»	»	4,80 »
Finnish modern (»real») school in Sordavala	»	34,4	»	»	4,80 »
New finnish model school in Helsingfors	»	34,65	»	»	6,20 »
Swedish girl's school in Åbo . .	»	36,0	»	»	4,50 »
Finnish classical school in Jyväskylä	»	41,0	»	»	5,00 »

On account of the temperature in winter in Finland, it is necessary to arrange *gymnastic halls* indoors for the schools. These are generally placed in the first story. The standard dimensions are: length at least 9,5 m, height 5—6 m and floor space per pupil 2,5 to 3 sq. m. The windows placed on one or both long walls, are 1,5 m above the floor. A separate dressing room of at least 20 sq. m, is provided and separated from the gymnastic hall with a solid wall; in newer schools it is in connection with a school-bath (shower-bath).

The gymnastic halls of the 10 mentioned schools in Finland have the following:

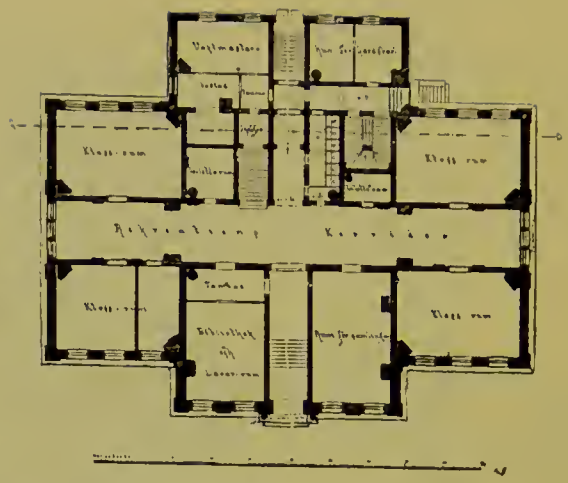


Swedish Girls School. Åbo.

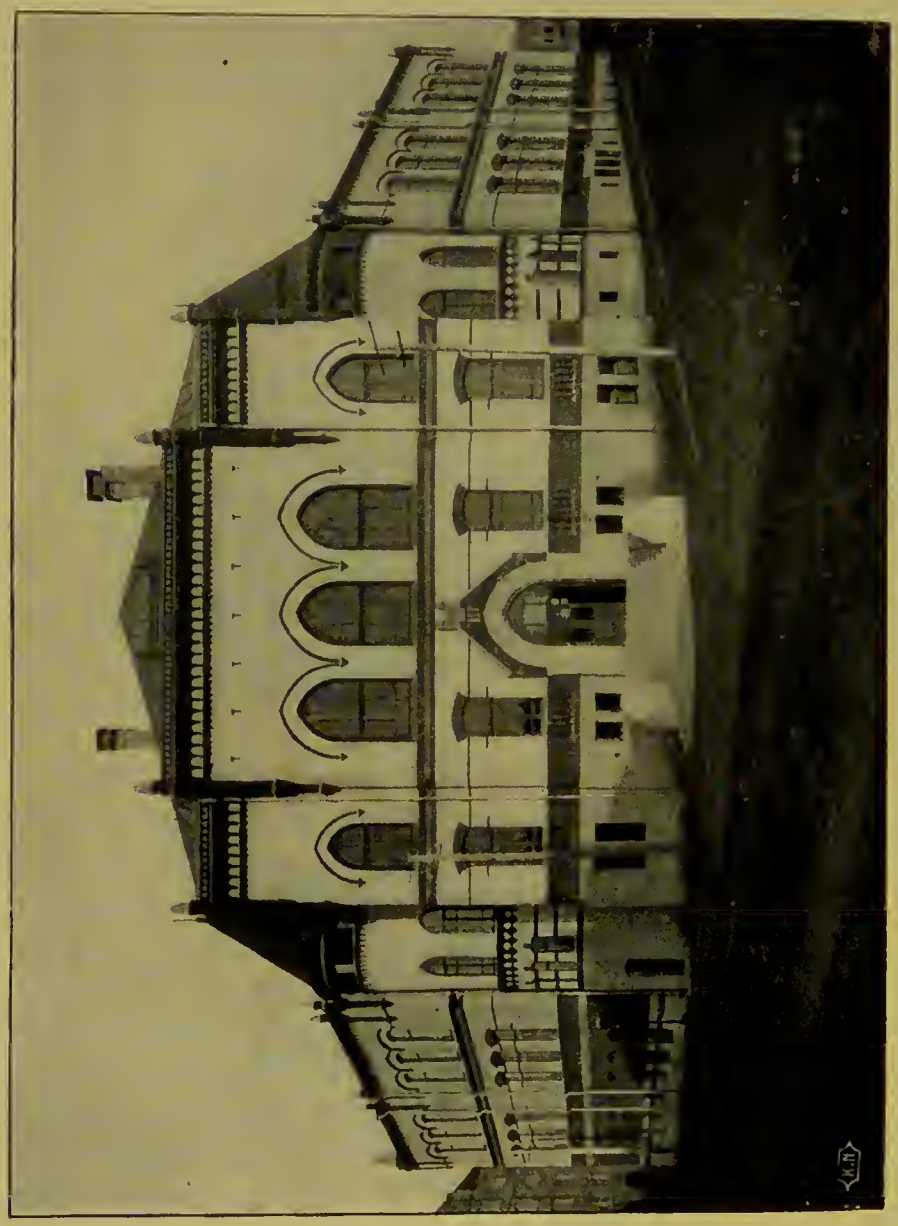


Swedish Girls School. Åbo.

Swedish Girls School. Åbo. I Floor.



Swedish Girls School. Åbo. II Floor.



Finnish Girls School. Wiborg.

Finnish Girls School. Wiborg. I Floor.

	Floor space	Height	Window area
Swedish model school in Helsingfors	17,75 + 11,8 = 209 sq. m,	6,6 m,	$^1/_4$ of floor
Swedish modern (»real») school in Helsingfors .	25,0 + 14,0 = 350 » »	8,0 »	$^1/_7$ » »
Swedish girls school in Helsingfors	17,8 + 12,3 = 210 » »	6,5 »	$^1/_6$ » »
Finnish girls school in Helsingfors	16,6 + 11,2 = 186 » »	6,0 »	$^1/_5$ » »
Finnish girls school in Uleåborg.	16,0 + 9,5 = 142 » »	6,0 »	$^1/_9$ » »

Finnish Girls School. Wiborg. II Floor.

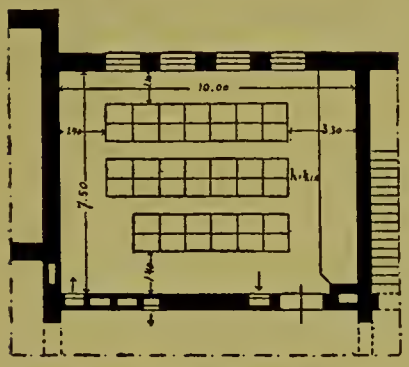
	Floor space	Height	Window area
Finnish modern (»real») school in Wiborg	14,8 + 9,5 = 135 sq. m,	5,8 m,	1/7 of floor
Finnish modern (»real») school in Sordavala	18,0 + 10,7 = 192 » »	6,6 »	1/7 » »
New finnish model school in Helsingfors :	21,7 + 10,7 = 232 » »	6,1 »	1/7 » »
Swedish girls schol in Åbo	15,6 + 10,2 = 159 » »	7,6 »	2/4 » »
Finnish classical school in Jyväskylä	16,0 + 11,0 = 176 » »	6,2 »	1/7 » »

The number of pupils per class in the schools in Finland never exceeds 40.

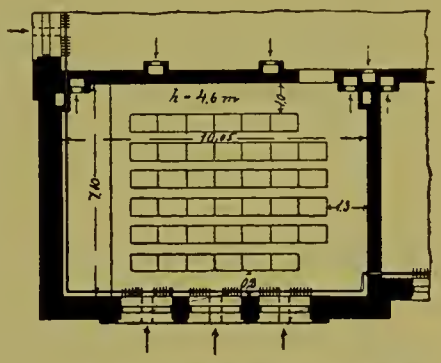
Overcoats etc. are hung up in *cloak rooms* or the corridors, a separate place being provided for each class with a separate partition for every pupil. The cloak rooms are based upon the standard of 0,25 sq. m. floor space for every pupil (10 sq. m for 40 pupils). In corridors, 6 m wall is counted per class. The hangers are fixed at 1 to 1,7 m height from the floor, depending on the age of the pupils and at a distance of 15 cm from one another. Also there is a shelf for caps and bags, pigeon holes for galoshes and stand for umbrellas in each partition. The wall, against which the clothes are hung, is panelled and varnished. The cloak room is ventilated. Provision is generally made for snow-shoes, sledges, cycles etc.

Size of Class rooms.

The class rooms in the schools of Finland are either deep classes or long classes. The maximum dimensions of the class rooms are: length 10 m, width 7,1—7,5 m and height 3,5—4,5 m.



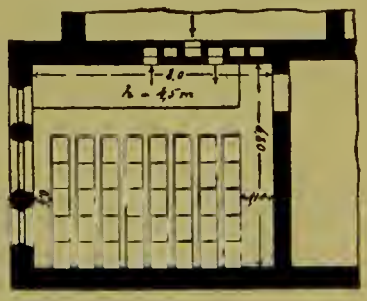
Long class. Finnish model School. Helsingfors.



Long class. Swedish model School. Helsingfors.

In a model school of eight classes, in Finland, one calculates for the five lower classes 4 to 5 cub. m air and 1,7 sq. m floor space per pupil; for the three higher classes the figures are 6—7 cub. m air and 1,7 sq. m floor space.

In the schools already mentioned the following figures are arrived at per pupil, calculated for 40 pupils per class:



Deep class. Swedish modern School. Helsingfors.

	Air per pupil	Floor space
Swedish model school in Helsingfors .	8.2 cub. m	1,77 sq. m
» modern (»real») school in Helsingfors	8,2 » »	1,8 » »
Swedish girls school in Helsingfors .	7,7 » »	1,8 » »
Finnish » » » » .	8,6 » »	1,9 » »
» » » » Uleåborg . .	6,4 » »	1,6 » »
Finnish modern (»real») school in Wiborg	7,8 » »	1,9 » »
Finnish modern (»real») school in Sordavala	6,7 » »	1,7 » »
New finnish model school in Helsingfors	7,7 » »	1'88 » »
Swedish girls school in Åbo	7,1 » »	1,6 2 »
Finnish classical school in Jyväskylä .	7,0 » »	1,7 » »

Heating and Ventilation.

The heating of the State schools is done either by means of caloriducts on the central heat system or by means of a combination of this and the ordinary stoves that are used all over the country; in smaller schools only stoves are used.

Either hot air, hot water or steam pipes for low pressure are used for the first system.

The ventilation, when hot water or steam pipes are used, is so arranged, that fresh air is taken in either direct over the batteries in the rooms themselves or is brought in from a special heating room in the basement. The foul air goes out through special ducts to ventilation shafts into the open air. School rooms with ordinary stoves are ventilated by means of these and the vindows or also from heating rooms in the basement.

The system of heating and ventilating for some of the public schools in Finland is given, with the costs for the same, in the following table:

	The heating cost in 1902, Finnish marks	Maximum number of pupils in 1902
Swedish model school in Helsingfors: warm water batteries in the rooms, ventilation from fresh air openings under the batteries	2,639: 10	171

	The heating cost in 1902 Finnish marks	Maximum number of pupils in 1902
Swedish »real» school in Helsingfors: central air heating	7,313: 55	439
Swedish girls school in Helsingfors: varm water batteries in rooms. Ventilation from air chambers in basement, warmed by batteries	6,717: —	399
Finnish girls school in Helsingfors: varm water batteries in rooms. Ventilation from air chambers in basement, warmed by batteries	2,323: —	412
Finnish girls school in Uleåborg: stoves in rooms, ventilation from warm air chamber in basement, heated by fired air-stove	no figures	no figures
Finnish »real» school in Wiborg: stoves in rooms, ventilation from warm air chamber in basement, heated by fired air-stove	3,092: 50	214
Finnish »real» school in Sordavala: stoves in rooms, ventilation from warm air chamber in basement, heated by fired air-stove	3,000: —	no figures

Light.

The artificial lighting is electric or gas light and, in small places, petroleum lamps are used. The school hours in Finland being generally from 8—11 and 12—3, artificial light is needed only during a very short time of the year.

Cleaning.

The school rooms are cleaned and aired every day after school hours. The floors in the gymnastic halls are sprinkled with moist sawdust, which is afterwards swept away, and this has been found to be a very good methood to get rid of the dust.

Toilets.

In boys' schools, the closets are in a separate house on the yard. In girls and mixed schools the toilets for the girls are in the basement of the house, and they are provided with a separate ventilating system. The pail closets with peatmoss has proved very satisfactory for the schools in Finland. For 40 boys, one seat and two urinals and for 25 girls one seat are provided.

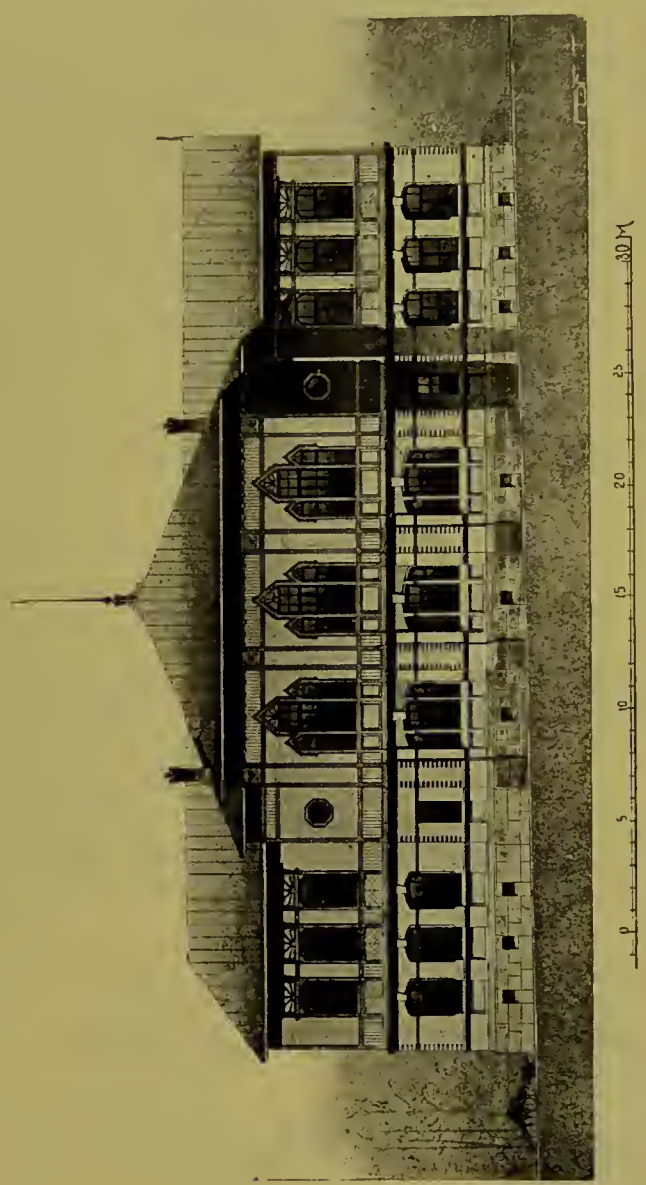
Certain data regarding the cost of school-buildings in Finland are to be found in the table below:

	Ground sq. m.	Volume cub. m	Total cost F. mark	Cost per cub. m
Swedish »real» school in Helsingfors	1,327	25,570	485,926: 45	19: —
Swedish model school in Helsingfors	1,138	20,490	483,814: 80	23: 61
Swedish girls school in Helsingfors	1,676	29,374	571,601: 49	19: 46
Finnish girls shool in Helsingfors	1,030	20,320	354,000: —	17: 42
Finnsih »real» school in Sordavala	724	11,331	229,200: —	20: —
Finnish »real» school in Wiborg, main building & outhouses	931	12,866	179,750: —	14: —
Finnish girls school in Uleåborg, main building & outhouses , ...	828	11,569	224,472: 73	19: 43
Finnish classical school in Jyväskylä . · . . .	1,072	14,252	246,747: 64	17: 31
Swedish girls school in Åbo	934	13,274	271,638: —	20: 46
Finnish model school in Helsingfors	1,290	23,228	450,000: —	19: 37

Training Colleges for people's school-teachers.

The buildings of the training schools are, as regards design, size of class rooms etc. erected on the same principles as the secondary schools. As they however differ from these as

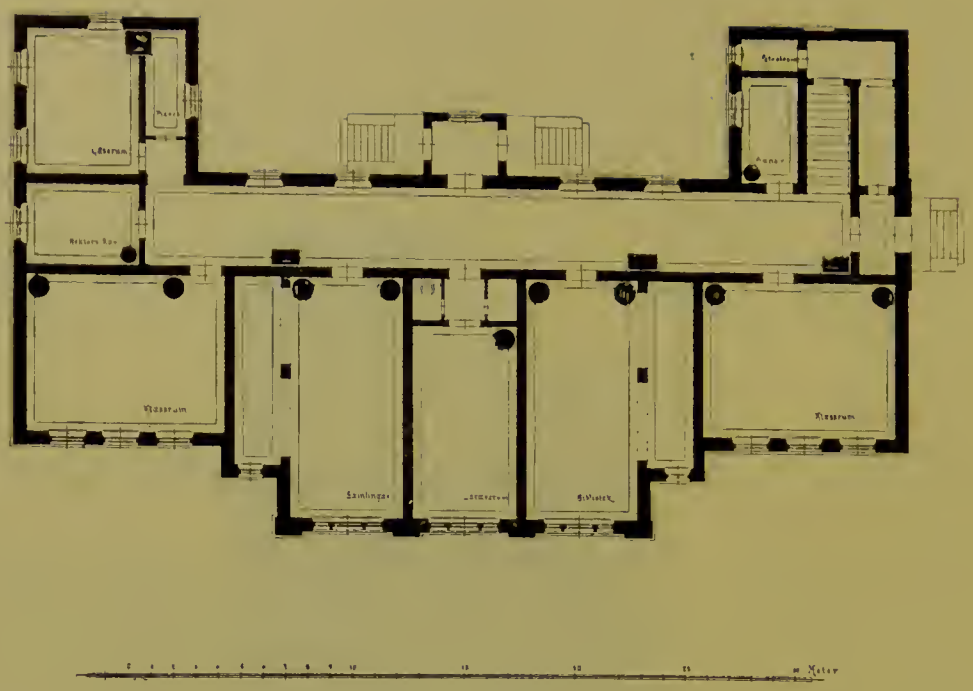
regards their purpose, we give here below a description of the newest training college for men, lying furthest away, in the town of Kajana on the Uleå lake. The description is given by the specialist for school-buildings in the General architec-



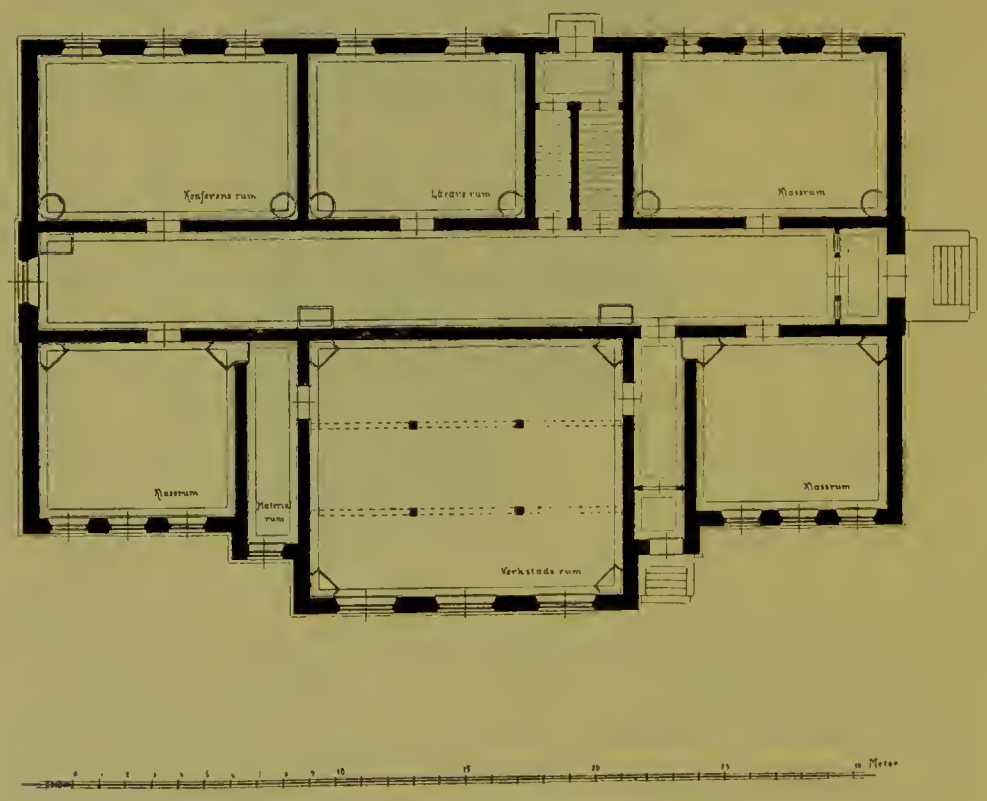
Seminary for People's School Teachers. Kajana.

tural council in Finland, the first architect Jac. Ahrenberg, under whose superintendence the drawings were made:

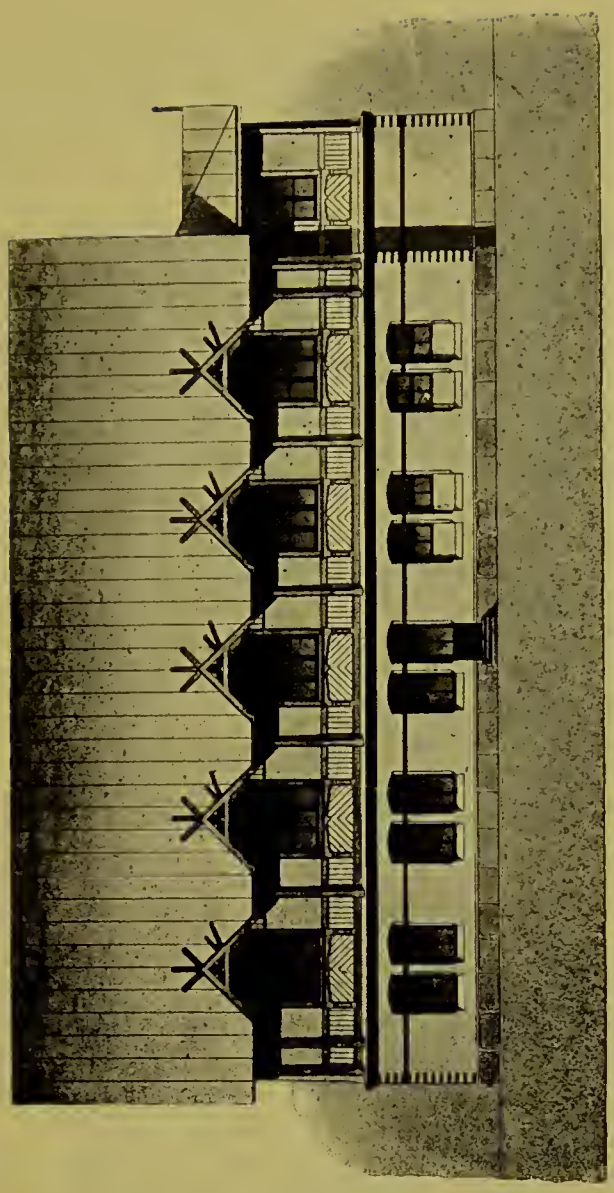
The School building, which has a length of 41 m and total wideness of 16 m, has in the first story the director's office, teachers' room, room for collections and library and two class rooms for not more than thirty pupils; in the upper story a



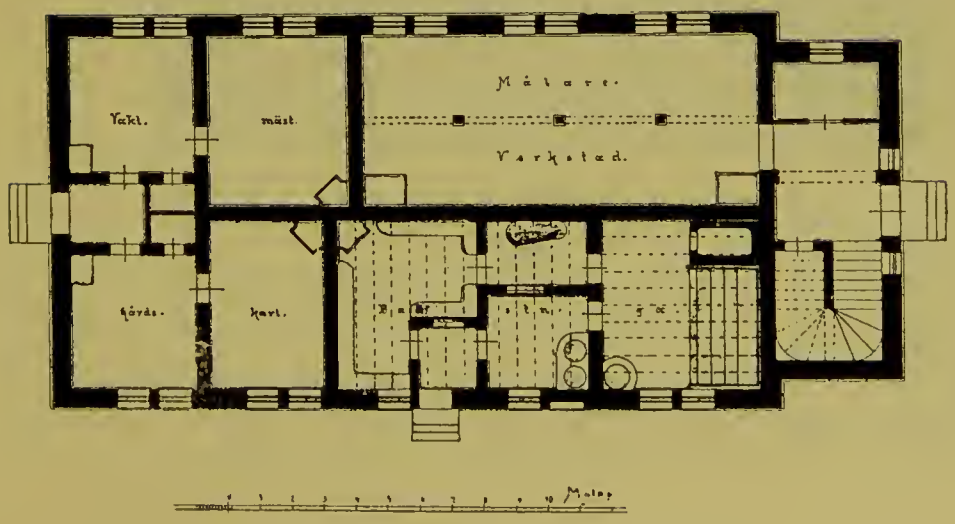
Seminary building. Kajana. I Floor.



Seminary. Kajana. Model School. I Floor.

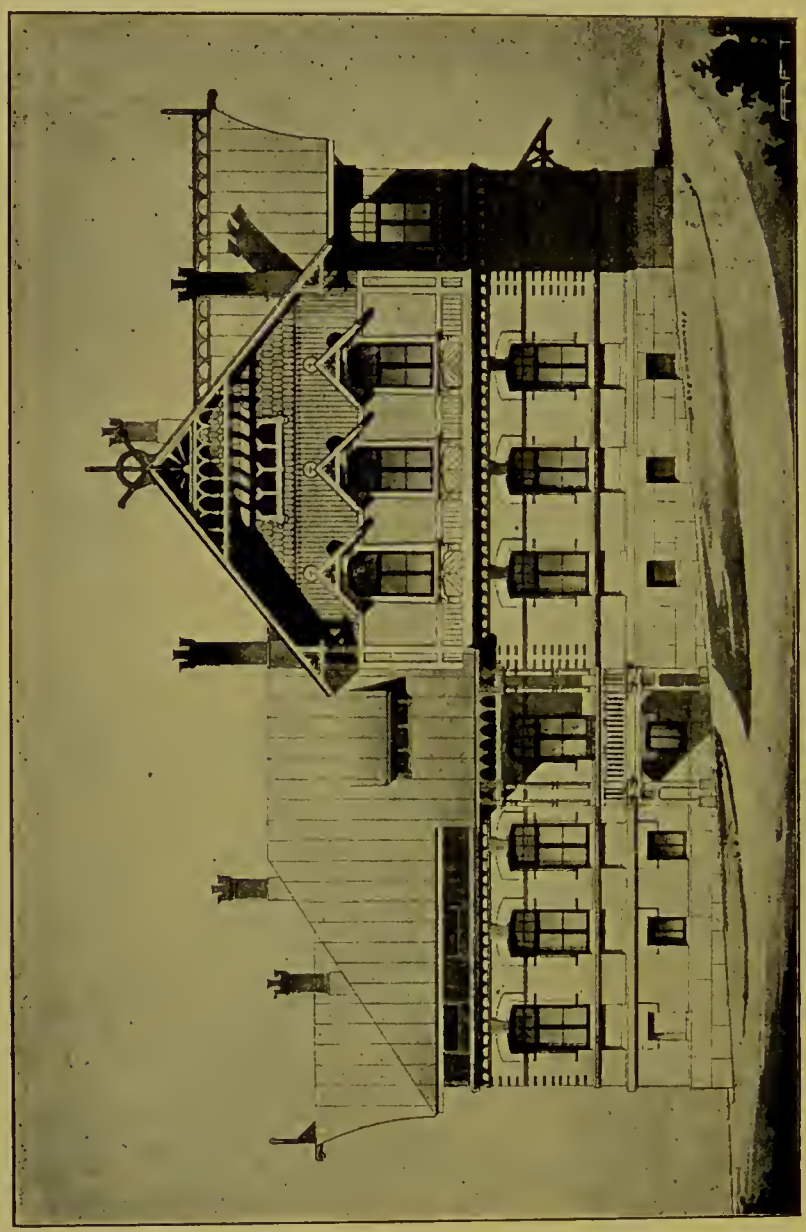


Workshops. Seminary. Kajana.



Workshops. Seminary. Kajana. I Floor.

large hall for festivals and prayers (15 × 10 m), two class rooms and a large room for drawing. Further, there are (in entresols of different heights) rooms for piano playing and the necessary corridors (side corridor system). The bottom part



Seminary. Kajaua. Directors Dwelling.

of the house is of brick and the upper of horizontal beams. The roof is of galvanized sheet iron.

The Model School, with a length of 34 m and greatest wideness of 22,20 m, has, in the bottom story teacher's room, room for conferences, two class rooms for 30 pupils and a large workshop for instruction in manual labours, in its upper

story a large hall for festivals and gymnastics (12,5 × 10,2 m), four class rooms and a room for collections, as well as roomy corridors (middle corridors). This building is also in its lower part of brick, in its upper part of timber and has a galvanized roof.

It is heated by means of stoves. The ventilating system has for these buildings been arranged as follows: The smoke-flues from the stoves are in the loft of glazed earthenware pipes. These pipes are surrounded by a chimney of brick. which leaves a hollow space around the clay piping. This space is now warmed by the smoke and ducts for the foul air

Seminary. Kajana. Directors Dwelling.

from the class rooms being connected with this warm space, the foul air from the rooms is suched away. The fresh air is conducted in through tubes in the outer wall, leading under the floor and behind the stove. This air comes into the room near the coping of the stove and thereby is warmed, before entering the room. The suction tubes for the foul air are placed near the bottom of the stove.

The Workshop building has a length of 25,5 m and a wideness of 12,3 m. The lower story, of brick, contains a room and kitchen for the porter, room and kitchen for the foreman, bath room arched (for the teachers and pupils) and a good-sized painter's shop with necessary stores. In the upper story, of timber, a large workshop, 21,5 × 11,10 m, lies. The room

has a total height of 5,3 m — its ceiling is broken in three plans — and is heated by stoves. To the workshop belongs a small room for the teacher.

The Director's house is in villa-style in three stories. Length 23,6 m, wideness 18,5 m. In the basement lie cellars for fire-wood and roots etc., for two tenants, calender room, wash- and baking-house. On the first floor lies the director's suite of rooms, consisting of office, private room, drawing-room, dining-room, reception-room, bedroom, nursery, servants' room, hall, kitchen, necessary wardrobes, warm and cold pantries etc. The third storey contains a small suit of rooms for the head master of the model school, comprising private room, drawing-room, dining-room, bedroom, hall and kitchen.

Green-house. The greenhouse itself (17,6 × 10,2 m) is built of brick; the kitchen and two rooms for the gardener, as well as a work-room, are of timber.

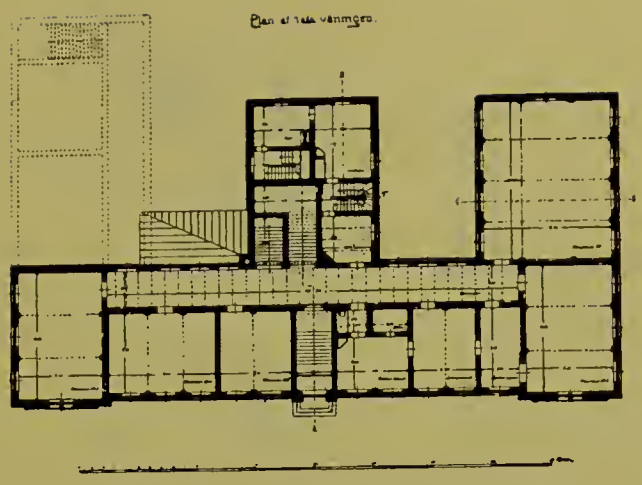
The Smithy, 7 × 6,4 m is of brick with asphalted felt roofing.

All out-houses are of timber with asphalted felt roofing.

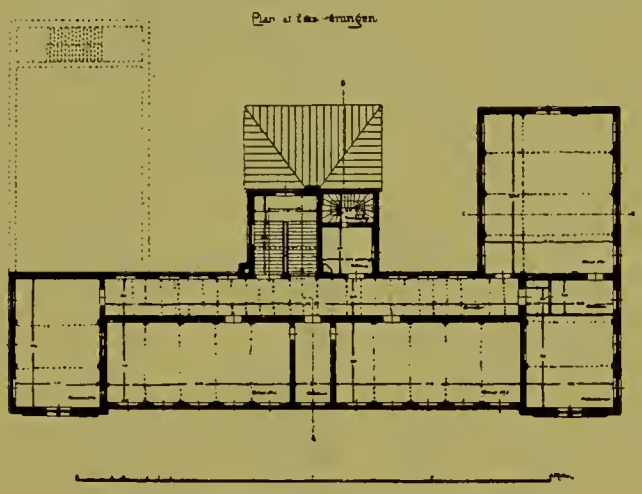
Technical Schools.

Besides the Polytechnical Institute, where higher technical education is given to students, s. c. technical schools have been built by the State for training master-builders and foremen. Below are given some sketches of the technical school in Åbo.

School for industrial Art. Åbo.



School for industrial Art. Åbo. I Floor.



School for industrial Art. Åbo. II Floor.

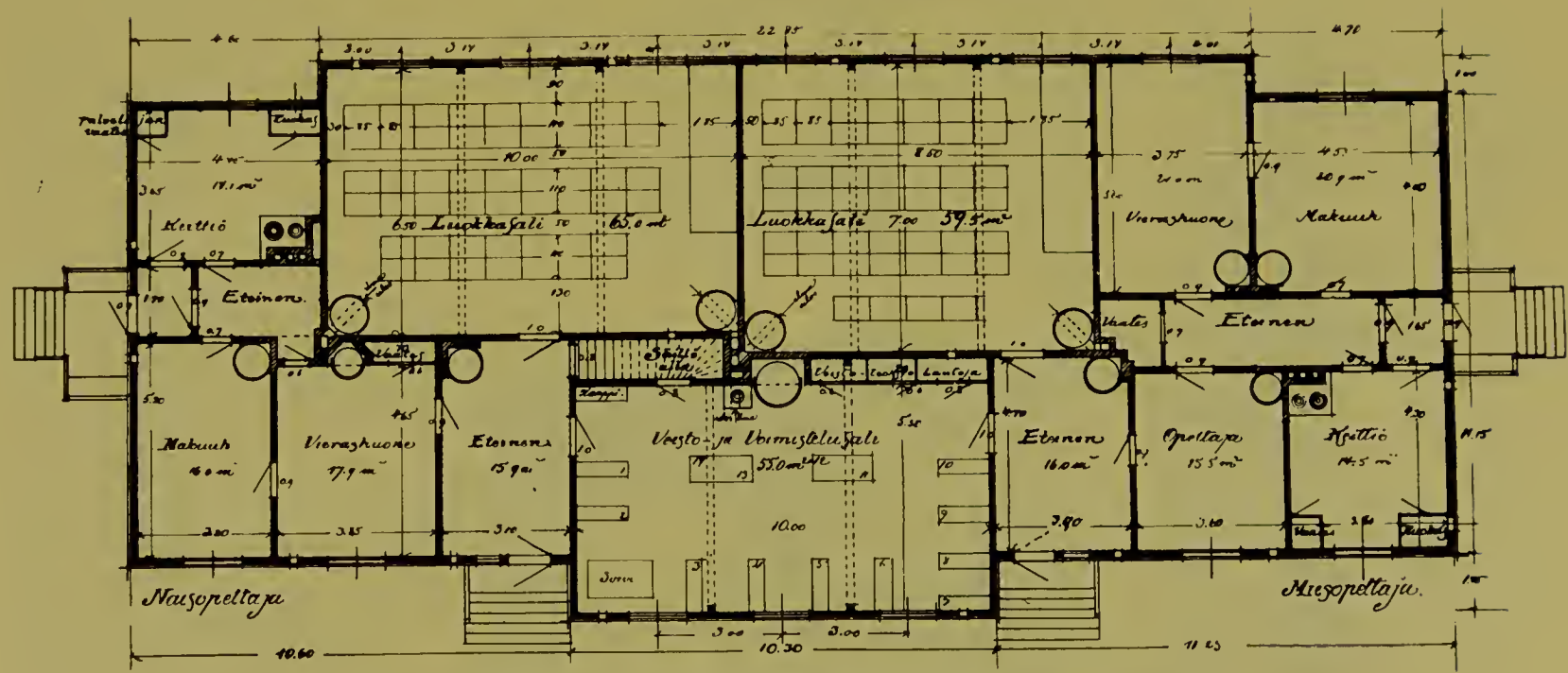
People's Schools.

In Finland's 472 rural parishes, there were, at the end of the school year 1905, 2,297 people's schools, of which 1,989 had their own houses and 308 in hired rooms.

The people's schools in Finland are of three kinds: 1) schools with only female teachers, 2)schools with only male teachers and 3) double schools with both female and male teachers.

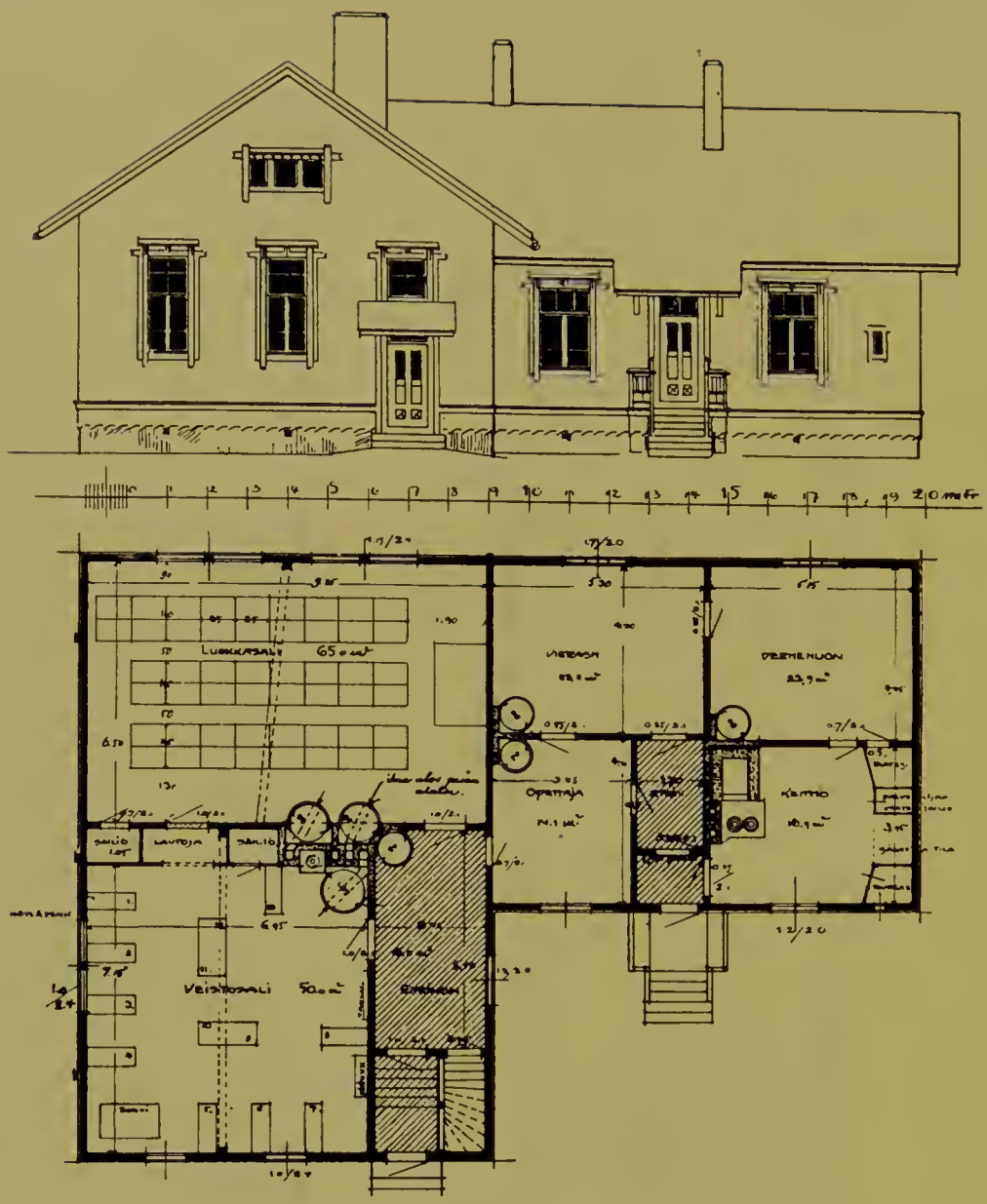
The Senate has caused to be worked out and since 1892 sent to every rural parish model drawings for people's school buildings. The drawings contain altogether 36 projects for school houses, both for one and two teachers, for separate

People's School building with lodging for female and male teacher.



People's school with two classroom and lodging for female and male teacher.

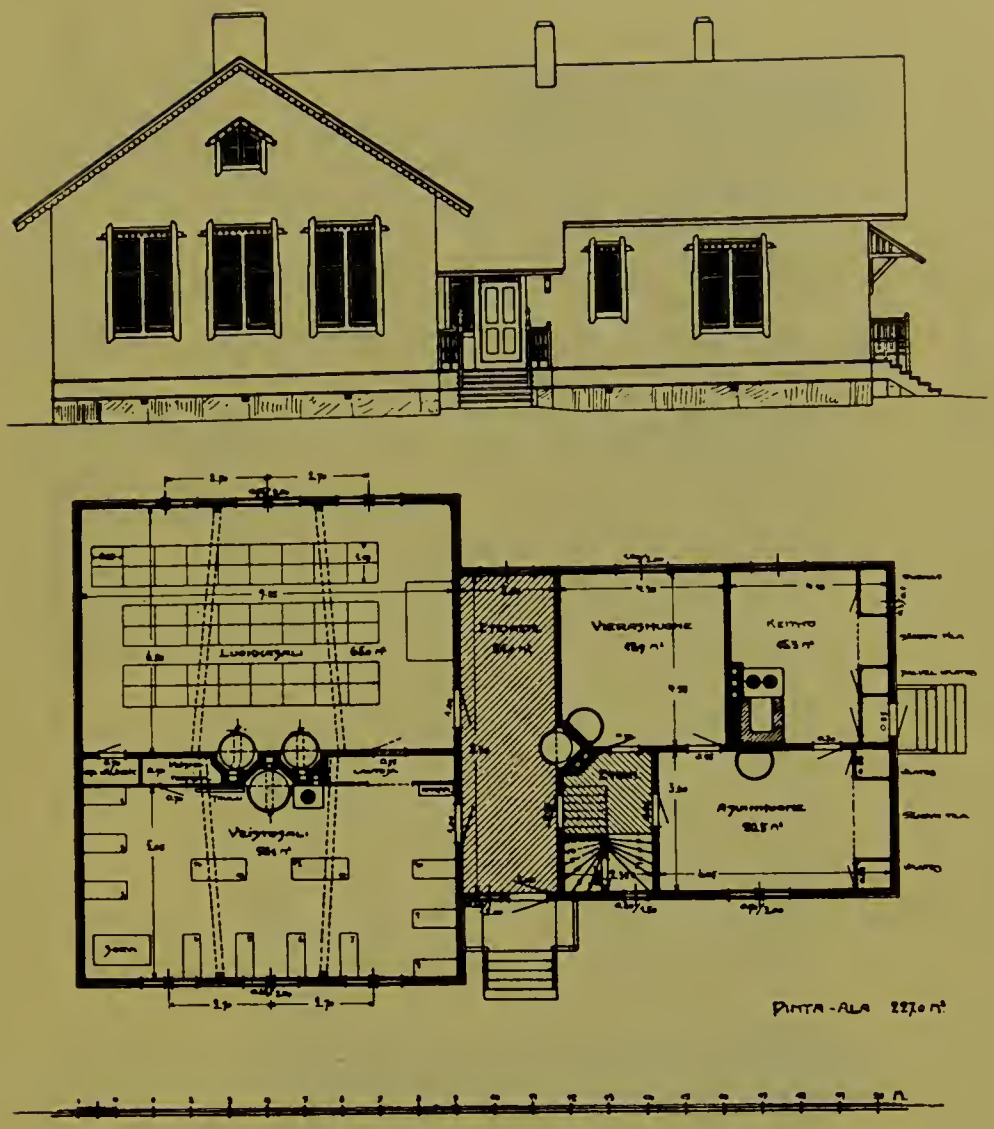
Area 397,3 squ. m. Cost F. mark 19,150.



People's school with lodging for male teacher.
Area 245 sq. m. Cost F. mark 12,350.

teacher's houses, for combined outhouses, as well as for separate outhouses.

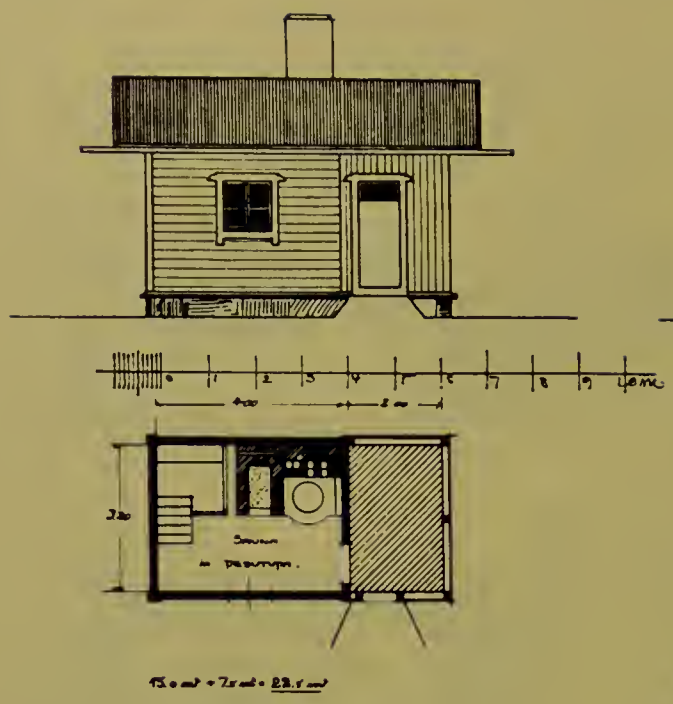
A new committee was formed in 1903 for working out new, somewhat simplified drawings for school buildings in the country. The project of the committee comprises 18 different designs for school buildings and a number of designs for outhouses. Of these new standard drawings we give here 3, viz. one double school, one with male teacher and one school with



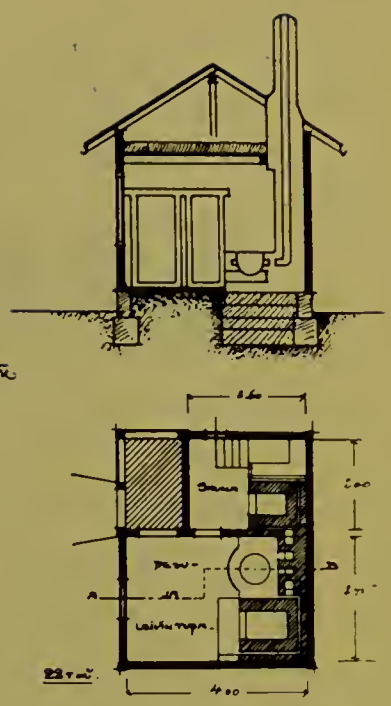
People's school with lodging for famale teacher.
Are 227 squ. m. Cost F. mark 11,750.

female teacher, all with the necessary outhouses, among which will be found the Finnish vapour bath house, which is to be found at every rural school.

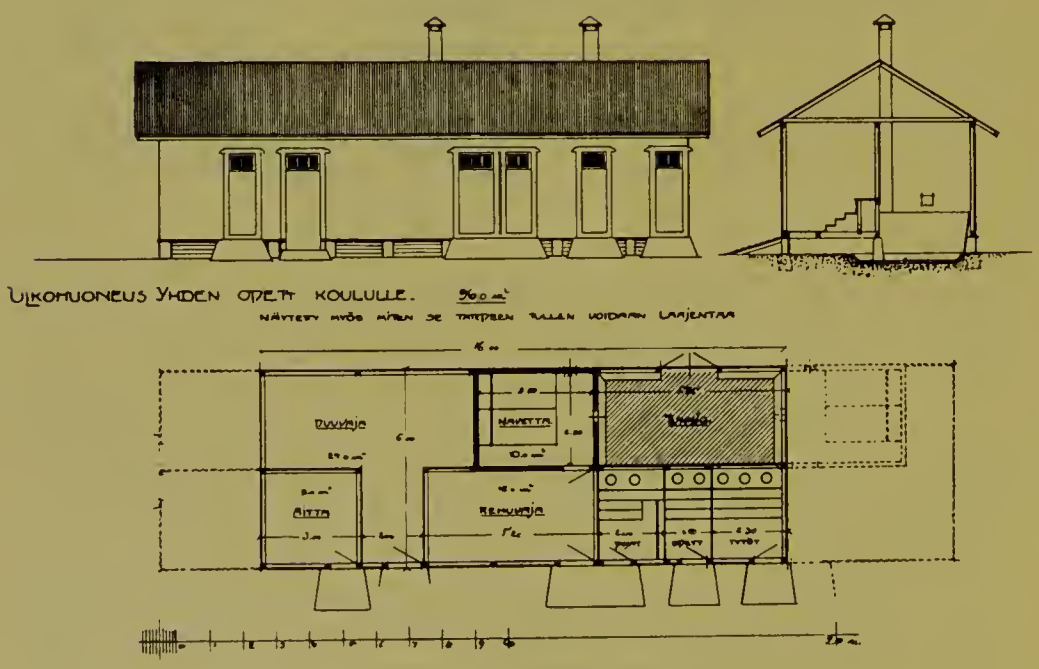
A school house for a male or female teacher (with not more than 50 pupils) contains as a rule: 1) one class room of 65 sq. m floor surface and a height of 3,8—4 metres; 2) one working room of 40—50 sq. m floor surface and 3) two or three living rooms and kitchen for the teacher, as well as the necessary outhouses. Every people's school in the country has a playground and soil for the school garden and also



Vapour bath and laundry.
Cost 980 F. mark.

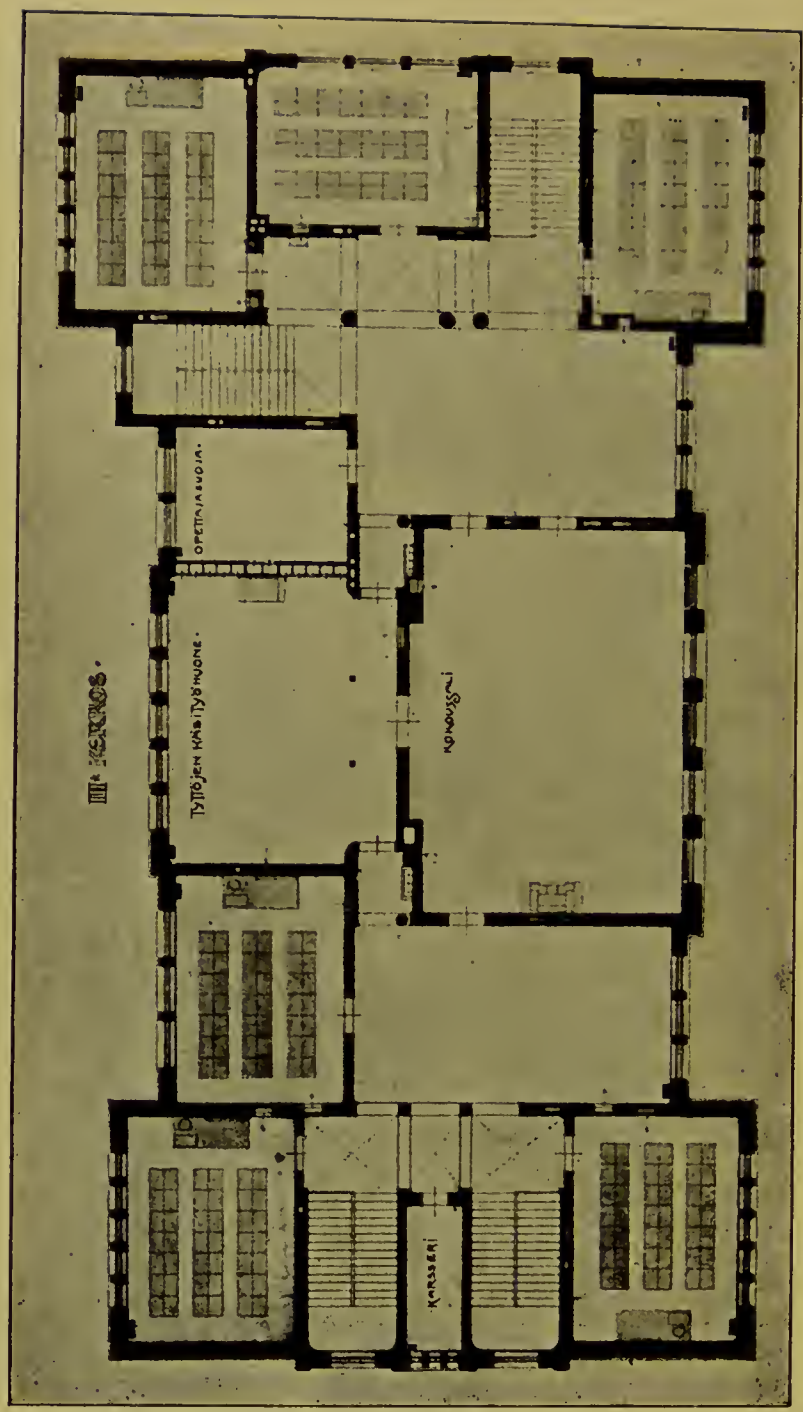


Vapour bath, laundry
and bake house.
Cost 1,270 F. mark.



Outhouse for a single school.

People's School in Tammerfors.



People's School in Tammerfors. III Floor.

1—1 $^1/_2$ hektar land for the teacher. A double school has besides the above, a second class room and dwelling for the assistant teacher.

The people's school buildings in the country are generally built of timber in one story.

Hall in the People's School in Tammerfors.

Samples of people's school building in town are given above. In the larger towns these buildings are erected of brick in two or three stories, generally after drawings, that have gained prizes in an open competition, as already mentioned.

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2. School furniture and other outfit.

The schools in Finland are supplied with hygienic school furniture. The seats and desks are fixed together. The distance is either 0 or +, but to give the body a good carriage while writiug, either the seat or the desklid is moveable. The people's schools have, however generally fixed seats and desklids with the distance 0, but then the pupils step out from their seats on to the passage between the desks when answering the teacher. In the girls' classes of the people's schools one part of the desklid is made to be lifted up on hinges; under this lid a pin cushion is fixed.

In the higher schools each pupil has his desk; in the

people's schools desks and seats for two pupils are generally used.

The design of the school furniture most in use in Finland is seen from the illustrations.

In classes with movable desk lids the pupils keep their school-books, copy-books etc. in the desks. In such with fixed desklids, there are a number of cupboards on the back wall of the room for this purpose.

The large windows, reaching almost to the ceiling, have curtains of light, dull colour, to be drawn aside.

The teacher's chair is placed on a raised part of the floor in front of the class.

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3. Material for instruction.

The schools have all a good supply of object-material, especially for the instruction in natural science an geography. The higher schools have laboratories and zoological museums.

Maps and pictures, as well as the black board, have dull surface. All books are printed on white, dull paper. The type is generally large and thick.

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4. School terms and holidays.

The school year has two terms: the autumn-term from Sept. 1:st to Dec. 20:th and the spring-term from Jan. 15:th to June 1:st. In the people's schools in the country the terms are somewhat adjusted to suit the agricultural labours, as agreed upon between the teacher and the parish, the autumn term generally beginning, for the lower classes in the middle of August, for the higher on Oct. 1:st. The legal requirement, of at least 204 working days per annum for the schools, is however complied to.

Besides the longer vacations for summer and Christmas, the school-children have six days free at Easter and one extra holiday every month.

The school year begins on Sept. 1:st and new pupils are only entered on that day.

In the training colleges for teachers in people's schools, the school year lasts from Aug. 20:th to June 4:th with four weeks at Christmas and 6 days at Easter free.

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5. School hours per day.

In most of the schools, the time for instruction is from 8—10 and 12—3; in others from 8—11 and 1—3. Every class in the State schools has besides one hour per week in the afternoon for gymnastics, generally 5—6. Instruction (voluntary attendance) is given in Singing, one hour per week, in classes V, VI, VII & VIII and in French, two hours per week, in classes VI, VII & VIII.

In the s. c. Infant's Schools (preparatory schools to the people's higher school or higher grade school) the time for instruction is only four hours.

At the end of every hour there is a pause in the lessons of 10 minutes, during which time the children are allowed to run about in the playground. The »hour» is, therefore, only 50 minutes long.

The table given below shows the number of hours for the different subjects of intruction in each class per week in the *classical* schools:

Subject	I	II	III	IV	V	VI	VII	VIII	Total
Religion	2	2	2	2	2	2	2	2	16
Native language	4	3	2	2	2	2	1	2	18
The other national language	6	4	3	2	2	2	2	2	23
Latin	—	4	7	7	6	7	6	5	42
Russian (in stead of Latin in class I! IV)	—	(4)	(3)	(3)	4	5	5	6	(10)20
German (in stead of Latin in class III—IV)	—	—	(4)	(4)	3	3	3	3	(8)(12)
Greek (in stead of Russian)	—	—	—	—	(4)	(4)	(4)	(4)	(16)
Psychologi & Logic (in stead of Russian VI—VIII	—	—	—	—	—	(1)	(1)	(2)	(4)
French (voluntary)	—	—	—	—	—	(2)	(2)	(2)	(6)
History & Geography	4	4	4	3	3	3	3	3	27
Matematics	6	6	5	5	4	4	4	3	37
Physics	—	—	—	2	—	—	2	2	6
Natural science	2	2	2	2	2	—	—	—	10
Writing & Drawing (Art.)	2	2	2	2	—	—	—	—	8
Singing (voluntary for cl. V, VIII)	2	1	1	1	(1)	(1)	(1)	(1)	5(9)
Gymnastics	3	3	3	3	3	3	3	3	24
Total	31	31	31	31	31 (32)	31 (34)	31 (34)	31 (34)	

For the modern *(»real»)* schools the following table is in force:

Subject	I	II	III	IV	V	Total for I—V	VI	VII	VIII	Total
Religion	2	2	2	2	2	10	2	2	2	16
Native language	4	3	2	2	2	13	2	2	2	19
The other national language	6	4	3	2	2	17	2	1	1	21
Russian	—	4	3	3	3	13	3	4	4	24
German	—	—	4	4	4	12	3	3	2	20
English	—	—	—	—	—	—	—	2	2	4
French (voluntary V)	—	—	—	—	2	(2)	5	4	5	14(16)
History & Geograpby	4	4	4	3	4	19	3	3	3	28
Matematics	6	6	5	5	5	27	5	4	5	41
Physics & Chemistry	—	—	—	2	2	4	2	2	2	10
Natural science	2	2	2	2	2	10	—	—	—	10
Book-keeping (volunt.)	—	—	—	(1)	(1)	(2)	—	—	—	(2)
Writing	2	2	—	—	—	4	—	—	—	4
Drawing (Art)	—	—	2	2	2	6	1	1	—	8
Singing (vol. V—VIII)	2	1	1	1	(1)	5(6)	1	1	1	5(9)
Gymnastics	3	3	3	3	3	15	3	3	3	24
Total	31	31	31	31 (32)	31 (35)		31 (32)	31 (32)	31 (32)	

The table for the *people's* schools is as follows:

Subject	I		II		III		IV		Total	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Native tongue reading	4	4	3	3	3	3	2	2	12	12
Native tongue writing-exerc.	4	4	4	4	4	4	5	5	17	17
Religion	3	3	3	3	3	3	3	3	12	12
Arithmetic	7	5	6	4	6	4	4	4	23	17
Geometry	—	—	—	—	—	—	2	—	2	—
History	—	—	—	—	4	4	4	4	8	8
Geography	2	2	2	2	2	2	2	2	8	8
Natural history	—	—	2	2	2	1	2	1	6	4
Writing	2	2	2	2	—	—	—	—	4	4
Drawing (Art)	2	2	2	2	2	2	2	2	8	8
Manual labours (»Slöjd»)	2	4	2	4	2	4	2	4	8	16
Singing	2	2	2	2	2	2	2	2	8	8
Gymnastics	2	2	2	2	2	2	2	2	8	8
Total	30	30	30	30	32	31	32	31	124	122

For the State *girls'* schools the following table is in force:

Subject	I	II	III	IV	V	Total
Religion	2	2	2	2	2	10
Mother tongue	3	2	2	3	2	12
The other national language	2	2	2	2	2	10
German or French	6	5	5	5	5	26
French or German (volunt.)	—	—	(2)	(3)	(3)	(8)
History & Geography	4	4	3	3	4	18
Mathematics	4	4	4	4	3	19
Natural history & Hygiene	—	2	2	2	3	9
Writing	2	2	—	—	—	4
Drawing (Art)	—	—	2	2	2	6
Needlework	2	2	2	—	—	6
Singing	2	2	1	1	1	7
Gymnastics	3	3	3	3	3	15
Total	30	30	28 (30)	27 (30)	27 (30)	

The State girls schools have besides 3 extension classes for training of future teachers.

These classes have the following table:

	I	II	III	Total
Obligatory subjects.				
Native tongue & literature	3	3	—	6
For future teachers: Psychology & Pedagogics	2	2	4	8
Voluntary subjects.				
Series A.				
Geography	2	2	—	4
History & Social order of Finland	4	4	—	8
Series B.				
French & German language & literature				
a) German, higher course and	4	4	—	8
French, extension course	2	2	—	4
b) French, higher course and	4	4	—	8
German, extension course	2	2	—	4
Series C.				
Mathematics	4	4	—	8
Natural science	3	3	—	6
Extra subjects.				
Second national language	2	2	—	4
Drawing (Art)	2	2	—	4
Religion	2	2	—	4

The following table is followed in the *mixed schools:*

Subject	I	II	III	IV	V	VI	VII	VIII	IX	Total
Religion	1	2	2	2	2	2	2	1	2	16
Swedish	6	5	3	2	2	2	2	2	2	27
Finnish	4	5	4	3	3	3	3	3	4	33
History	—	—	3	3	3	3	3	3	3	20
Geography	4	3	2	2	2	—	—	—	—	13
Mathematics	3	4	4	4	4	4	4	5	5	37
Physics	—	—	—	—	—	—	2	2	1	5
Object-lessons	1	1	—	—	—	—	—	—	—	2
Natural history	—	—	2	2	2	2	2	—	—	10
Hygiene	—	—	—	—	—	—	—	1	—	1
Russian	—	—	1	4	4	4	3	3	4	21
German	—	—	4	3	3	3	3	3	3	23
French	—	—	—	—	—	3	3	3	3	12
English	—	—	—	—	—	—	—	2	1	3
(Latin)	—	—	—	—	—	(4)	—	(3)	(4)	(11)
Calligraphy	2	2	2	—	—	—	—	—	—	6
Drawing (Art)	1	1	1	2	2	2	1	—	—	9
Needlework etc.	2	2	—	—	—	—	—	—	—	4
Singing	1	1	1	1	1	—	—	—	—	5
Gymnastics	2	2	2	2	2	2	2	2	2	18
Total	27	28	30	30	30	30	30	30	30	

Methods of instruction.

The methods of instruction, in sanitary respects, are partly evident from the above. The number of hours given to practical exersises in the people's schools and partly also in the girls' schools in comparison with the hours for the same subjects in the boys' schools and mixed schools is especially of interest. As seen from the tables, the boys in cl. I & II in the people's schools devote 10 hours in the week and the girls 12 hours to practical subjects (writing, drawing, manual labours (»Slöjd»), singing and gymnastics) and cl. III & IV, 8 and 10 hours respectively; in the girls' schools 9 hours for cl. I, II, 8 hours for cl. III and 6 hours for cl. IV, V: in the boys' higher schools, however in cl. I, 7 hours, 6 hours in cl. II—IV, 3 (4) hours in cl. V—VIII; in the mixed schools for cl. I, II, 8 hours; for cl. III, 6 hours; for cl. IV, V, 5 hours, for cl. VI, 4 hours; for cl. VII, 3 hours and for cl. VIII, IX, only 2 hours.

Ia all schools the following lesson in each subject is prepared and explained by the teacher, so as to facilitate the home-work as much as possible for the pupils. Especially in the people's schools, explanatory instruction is used to a very high degree, the pupils in these schools being also in other ways exempt from burdening their memory with a lot of details as difficult definitions, minute divisions and sub-divisions, formulæ, years etc., all of which details seem, we are sorry to say, still the rage in the higher schools.

It can be said in general, that the methods of instruction in the people's schools in Finland stand very high in sanitary respects, as well as in pedagogical. If instruction in the higher schools could only do away with the unnecessary burdening of the memory, which is still in vogue, no intellectual over-exertion need be feared. The children's fondness for games and sports is however a good counterbalance against this evil.

This holds good more for the boys than the girls. The daily occupations of the girls necessitate a more sedentary life than those of the boys. The more easely affected nervous system of the girls an their natural desire to appear to their advantage result in that they — especially in mixed schools — are easier subject to over-exertion than the boys. Prof. Dr. *Pipping* has made a series of weighing the pupils in the mixed schools in Helsingfors, and these have proved that the boys steadily increase in weight, certainly most during the summer holidays; the girls, however, do not increase, but on the contrary, decrease in weight during the school terms, only increasing during the holidays. This proves without doubt the disturbing influence of the school work on the natural development of the girls. That is most evident during the preparation for the student's examination, when the memory at once shall be over-burdened with all the details, that have been tought in school. Voices have been raised, that this final examination should be abolished.

Drawing.

Instruction in linear- and constructing-drawing is only given in the professional schools. The hours devoted to art drawing will be seen in the tables pages 48—51.

The instruction is intended to lead the pupils to be able to make independant observations from nature, to put these observations in drawing in steady, definite shape, as well as to retain in their memory a clear picture of the drawn subject. The drawings are made principally from natural objects, not from pictures.

Singing and Music.

In the training colleges for people's school teachers instruction in singing begins with score-reading, rhytmical exercise and preparatory exercises for hitting the right tones. These exercises then continue through all the different keys. Instruction is also given in the musical theory, part-singing and in instrumental music on the piano or harmonium. In the people's schools the instruction is the same, only the theory and instrumental music are not taught.

The instruction in singing in the secondary schools *) takes, in spite of its great importance even from a hygienic point of view, only a back seat, we are sorry to say. In times gone by singing was compulsory in the four lower classes; but since the five lower classes have been transformed into a bottom school with finished courses, singing has had to make room for other subjects of instruction, so that now only the two lower classes take part in it. The course, which on account of the above fact, must move within very narrow limits, comprises: the first fundamental laws of music; exercises in hitting tones, singing at first sight and by ear. On these exercises great stress is laid, and the method followed is the ingenious »Desirier's», which has been exceedingly well adapted for our conditions by the late director of Helsingfors Musical Institute, *Martin Wegelius,* M. A.

This method represents every tone in the scale by a short melodious-formula. These formula are carrefully repeated and soon fix themselves in the minds of the pupils. After a short time the pupils are able, by the help of the formula, to find every tone in the scale, provided the key-note is given, and after continued exercise the result is obtained: to be able to

*) The report on the instruction in singing and music in the secondary schools is made by Mr. *Alarik Uggla,* teacher of singing.

sing simple melodies a prima vista. Singing by ear is limited — as it should be — to the least possible. For the courses in general music etc. the books followed were published by director M. Wegelius, our chief author and authority in these matters.

Manual labours (»Slöjd»).

Manual labours are practised principally in the people's schools, but in all the State girl's schools the pupils are taught needlework, as also is the case in the two lowest classes of the mixed schools.

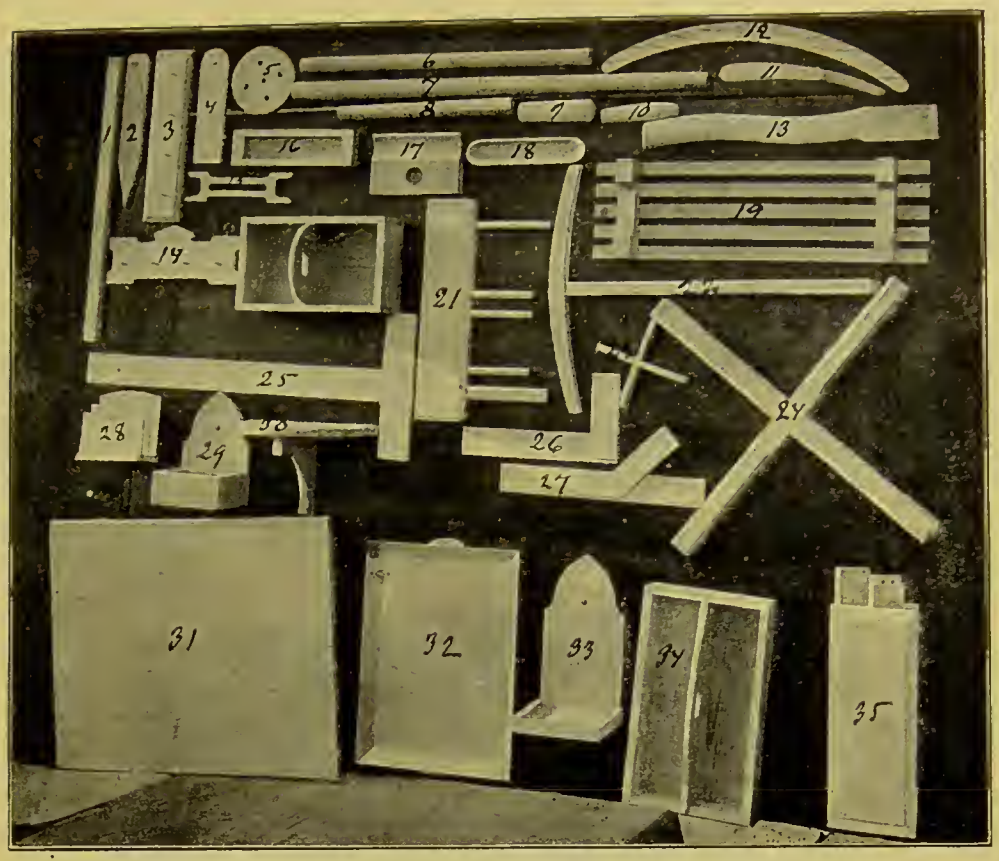
The girls in the people's schools are taught dressmaking and sewing, knitting, darning and patching.

The boys in the lowest class work in paper and pasteboard. In class II they begin with wood-work, which is continued through the whole school.

Instruction in manual labours is not only a counterbalanse against the still-sitting school work, it also tends to rouse and develop the child's natural activity. It makes the pupil respect manual labour and develops the sense of order and exactness, as well as the pupil's talents for art; his sense for symmetry and harmonious proportions is sharpened. The children themselves practise measuring, calculating, comparing, planning, designing and in one word all the different arts required in the work; they learn to be clever with the tools and the common materials. The knowledge, which the pupils have got in arithmetic, geometry, drawing and natural science is applied at every suitable opportunity; f. i. when explaining the physical properties of the tools and material.

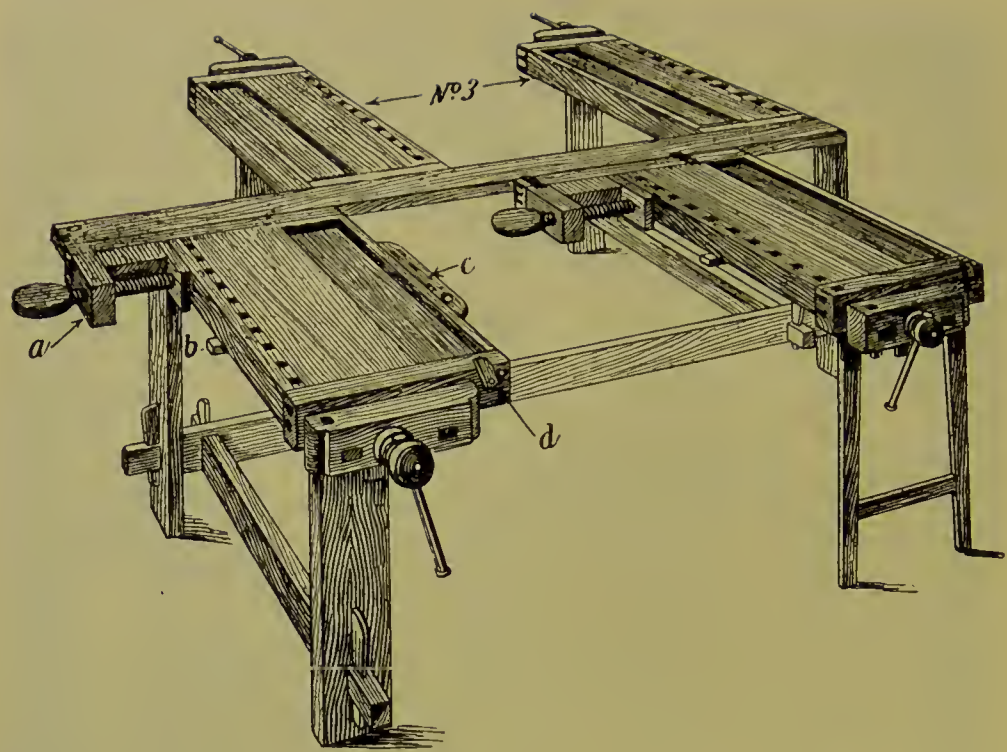
To further the great hygienic import of this instruction the pupils are always ordered to give the body the correct carriage while working.

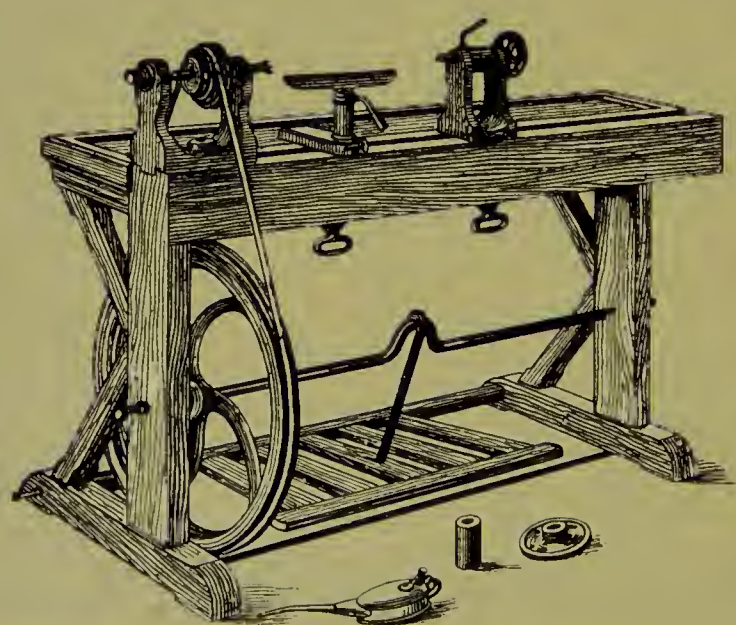
Tools, utensils and standard models for the people's schools in Finland are shown in the figures below. Besides this series there are two other series of models, all three ratified by the Education Board of the Senate.



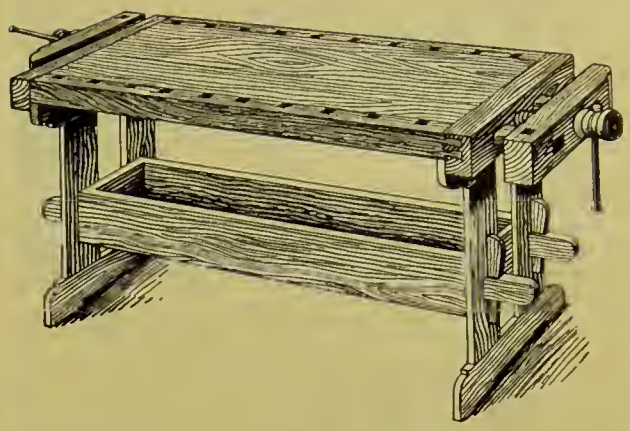
Models for People's Schools.

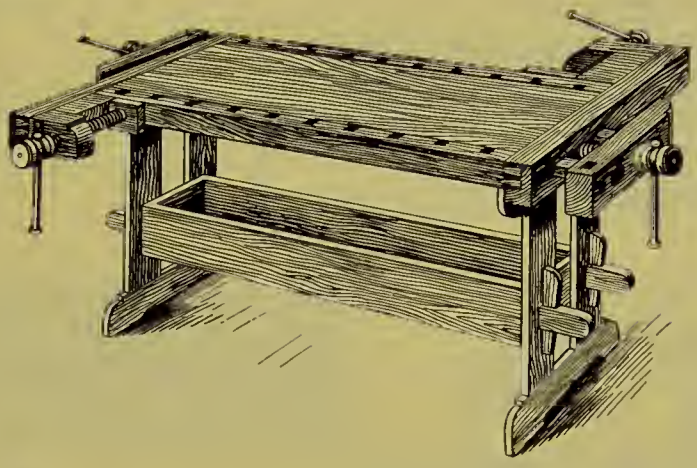
Tools for People's Schools.

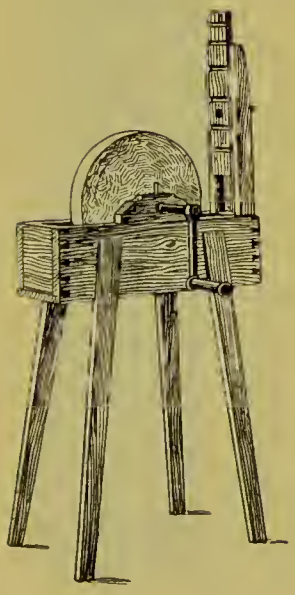


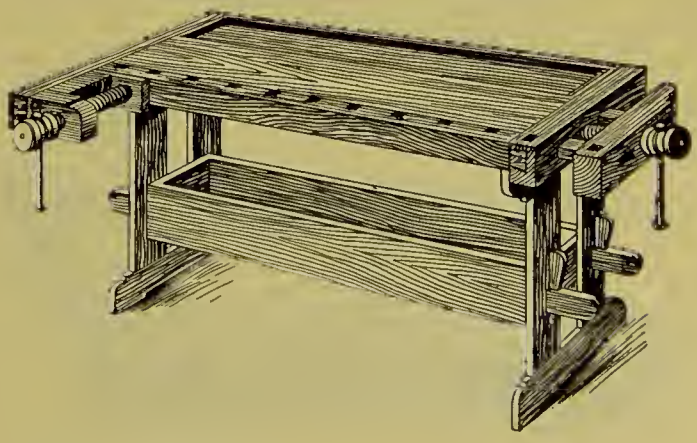


Tools for People's Schools.

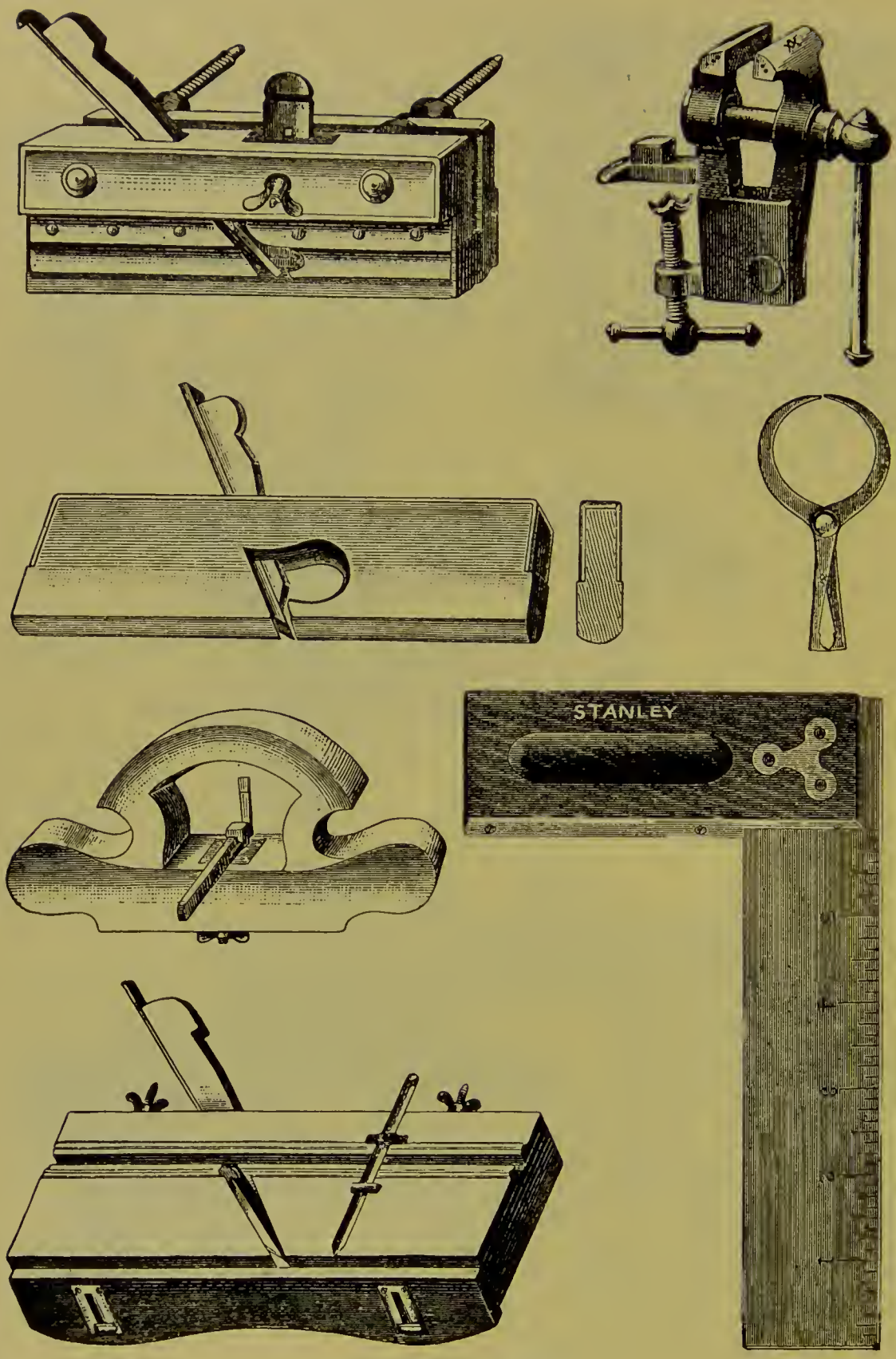








Tools for People's Schools.



Tools for People's Schools.

Home work.

The general home work for school-children (exept preparation for examinations) can be put down at about 1—3 hours a day, depending on class and intellect. For a good many this average is too small.

Meals.

The school hours have influenced the whole order of work as well as public and family life in Finland. The school children have their breakfast between 7 and 8 a. m., their lunch either between 10—11 or 11—12, which is the general lunch-hour in civil life. At 3: 30 or 4 p. m., when the children come home from school, is the dinner hour for most families and at 8 p. m. supper.

In the people's schools, the mealtimes vary somewhat more, depending on the length of the children's way to school and the parent's occupation. Some pupils take their lunch with them to school and eat it there.

Benevolent societies have established eating-places for poor children, where they get their meels after school and are obliged to do some light work as a kind of payment, so that neither they nor parents may get depraved.

A. Palmberg.

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6. Physical education.

Gymnastics.

The Government introduced gymnastics into Finland's schools by the School Act of 1843 for secondary schools for boys, in which 4 or 5 hours for each class were ordered. This resolution could, however, not be put into force everywhere, on account of want of suitable teachers and localities.

When the Svedish model school in Helsingfors was founded, in 1864, three hours a week for gymnastics were introduced and it was also decided, that the teacher in Gymnastics

should during two hours per week train teacher-candidates to teacher in gymnastics.

In Finland's first training college for people's school teachers, which was founded 1863 with a four years course, a teacher in gymnastics, with the same privileges as other teachers, was engaged, and the pupils are trained to teachers of gymnastics as to other matters. The gymnastics here introduced were more extensive than the courses at that time in the schools and University. The course comprised among other things exercises with staff and on the horizontal and paralled bars.

From 1869 gymnastics were gradually introduced in two boys' schools in Helsingfors and a private course was established in the same year for training female teachers in gymnastics. This course, which was subventioned by the State, continued up to 1891.

At the University, where since 1876 gymnastics are introduced and have won great response, a one year's course for training male teachers in gymnastics for the higher boys' schools was begun in 1882, this course comprising also a short instruction in anatomy, physiology, kinematics, methodics and the history of gymnastics, as well as practical exercises in gymnastics, fencing and commanding. In this course a number of clever teachers have had their training.

Gymnastics had already in 1873 been made compulsory in Finland's modern (»real») schools for boys and in all higher schools fors girls, with 3 hours per week. Only in 1883 gymnastics were made compulsory in the classical schools, with 2 hours per week, and 1894 with 3 hours per week.

In 1874 a detailed, practical handbook in school gymnastics for boys was published, containing standard exercises for the separate classes in free, combined and apparatus exercise, games, sports etc. With the help of this book, as also of the course of 1882, the school gymnastics made good head-way in the eighties. A number of private clubs helped to develop the interest also.

The course for teachers in gymnastics at the University was, in 1894, extended to two years with a preparatory year for studies of physics and chemistry. The same comprises now, besides the subjects of the 1882 course, and which are now studied more extensively, hygienics, a course in first aid

and the foundations of the theory of kinesipathy. To get employment as teacher of gymnastics, the aspirant must have attended these courses, passed his examination for the professor of pedagogy and have passed the practical test in a model school or State girls' school in Helsingfors. Since 1894, teachers of gymnastics have the same privileges as the other teachers.

The method of the instruction in school-gymnastics is principally german with a few Swedish principles, f. i. good carriage, correct execution and choosing and order of exercises also from a physiological point of view, although not only from this.

Every lesson in gymnastics consists as a rule (e. a. in case it is not exchanged for games or matches in the open air) of the following five different kinds of exercise: a) drilling exercises in file with or without staffs, b) running or jumping in time, c) hang- or support-exercise on apparatus for the muscles of the arms and body or else different kinds of combat, d) exercises on apparatus for muscles of legs and body, mostly jumping and now and then balancing or, (in the lover classes) a running game, e) military drill. The approximate time is for a) 15 to 20 min., b) 5, c) 10, d) 10 and e) 5 minutes. The exercises are taken in the given order, but in the lower clasces, the drilling exercises are broken off by a hanging exercise or a match in fast running.

The drilling starts with an exercise in deep breathing, while the air in the room is still pure, after which follow — depending upon the development of the class — more or less co-ordinate and heavy exercises, which exert all the muscles of the whole body. They are always executed one movement at a time and are corrected as to form, after that they are repeated, with or without variations, in time, if suitable. The running is mostly done forwards round the hall or in different figures, but also backwards and sideways, broken off by turnings and halt. The first exercise with apparatus take place with the vertical poles or ropes, ladders, horizontal bars, parallel bars etc. and are so arranged, that during the exercise the stretching and bending muscles of the arms, as well as those of the belly are exerted. A number of pupils take part in these exercise at the same time ($^1/_3$ to $^1/_6$ of the class), on the same kind of apparatus.

The other kind of exercise with apparatus consists princi-

pally in free and bound jumping on and over such apparatus as leaping rope, swinging rope, horse, vaulting horse, parallel bars etc. or else in balancing on low placed horizontal beams. The military drill consists in certain steps and turnings while marching or running. The program for the different hours changes, at least for the greater part, for every lesson, so as not to make the instruction tedious. In the girls' schools the program is more like the Swedish system.

Every school class has its gymnastic lesson for itself under the teacher's direct supervision, not in small detachments under pupil teachers. There are separate class courses, although these are not confirmed. The pupils are therefore, year by year, developed, whereby the interest is held alive. That this is the case is proved sufficiently by the number of the voluntary gymnastic clubs in many schools, where the pupils are commanded by an older school-fellow.

All the higher boys' and girls' schools of the State have their own gymnastic hall, most of them also their own playground. During the spring- and autumn-months the hours for gymnastics are, weather permitting, employed in games and sports.

In the *people's* school the gymnastics stand considerably lower, the teachers not having received sufficient training in the colleges and many of them not having any abilities in this line. These schools in the towns have still for the greater part, good gymnastic halls.

At the *University,* there were, previously, only two hours given to gymnastics and two to fencing. The number of the former was, in 1859, increased to 4, in 1866 to 6 and the latter to 4. Since the end of 1880 the hours for gymnastics are 12 and since 1894 for fencing 6 per week. About 25 to 30 per cent of the present students take part in these lessons, besides which a good many sport. A new drill hall was built in 1896, which contains among others one hall for men's gymnastics, one for fencing and kinesipathy and one for ladies' gymnastics and kinesipathy. These halls are also used by clubs, schools and patients from outside the University. There is a female teacher for ladies' gymnastics and one for ladies' kinesipathy.

V. Heikel.
Director of Gymnastic Institute,
University, Helsingfors.

Games.

In Finnish gymnastics games have an integrant part. The great value and meaning of games in regard to the mental and bodily development of the children is fully recognised by the greater part of pedagogue-gymnasts. Especially is this the case as regards the representatives of our gymnastics for women, but also among our male gymnastic-teachers there are a number of influential persons, who regard, and with good right, a lesson in gymnastics, in which there are no games, as partly a failure.

Of the three hours per week, which are in our country given to gymnastics, the third one is placed outside the actual working plan of the school. The wish of the School-Board is that this hour be given principally to free sport and regulated games. Our climate, however, been such as to prohibit out-of-door games during a great part of the school-year, the games must needs mostly take place in the gymnastic halls, this necessarily weakening their hygienic value in a high degree.

That games have become wider and wider spread is proved among others by the fact, that during a couple of years a number of hand-books on only games and sports, have been published.

Among games, that are most often played and seem to be most popular among our youth, all kinds of games of ball come into the first place. Our gymnastic-halls have, we are sorry to say, too small dimensions to allow such games to be well played indoors. Besides this, when building the halls, the authorities have not taken games into consideration.

In boys' schools the games often take shape of combat or matches. But they are now arranged so, that no separate individual can go as victor from the fight; a number of boys are placed against another group, and these groups are recruited differently for each game and hour. This, from a pedagogical point of view, quite correct idea seems to be appreciated also by the children themselves.

There was a time, when many a pedagogue thought he could truthfully declare, that the youth in our cold country could not play. This declaration seems, year by year, to lose authority. Not alone the youngest children, but even the riper

youth take great interest in games, if well lead. The fact is, that even Finnish children have inclinations for games, but the bad success, which games seemed to have with us, was the result of the inability of the greater part of former teachers, to rightly appreciate the pedagogical, hygienic and physiological importance of games and to order and lead them in a correct way.

Ivar Wilskman.
Lecturer of Pedagogical Gymnastics.

Sports and Athletics.

Since gymnastics had been roused and spread in our country, in most of the higher schools leading to the University were formed gymnastic- and sport-clubs under the leadership of either the teacher in Gymnastics or an older pupil, who was gymnastically prominent. About these school-clubs, at present numbering 34, can be said that they have, generally speaking, shown great activity by arranging annual exercises, matches and exhibitions.

The interest for sports in general has been steadily rising of latter years, especially among the pupils in the higher schools and some of the mixed schools. The reason for this pleasing fact seems to be found in a number of circumstances. Foremost among these may be mentioned the forming of two great Athletical Unions, the one comprising the Finnish speaking schools and the other consisting of the pupils, belonging to the Swedish speaking schools.

The former union has at present 19 branches, representing 25 schools and somewhat over 800 numbers, spread all over the country. This number of members must be considered very high, when only such schools, as lead to the University, are admitted to the Union, besides which another condition is, that aspirants must be at least 15 years old and have the highest certificate in gymnastics.

What succes has followed the Union, is proved among others by not less than 9 new Finnish records being made by it in 1901. This number was raised the following year to 7, of which some are still in force. The greatest interest of the Union is concentrated about mutual annual matches, held in

different parts of the country with the purpose of winning a challenge-horn. At these matches, every summer a steadily increasing number of active young men, from all parts of the country, meet, and it must be mentioned that at these matches the brotherly concord and harmony are above all praise.

The Athletic Union among the pupils of the Swedish speaking schools has a less number of branches and members than the first mentioned Union, but this is not to be wondered at, considering that the proportion between the Finnish an Swedish schools, which lead to the University, is about 2 : 1. During its short time of existence the Swedish Union has shewn great activity, manifesting itself among other ways in a couple of mutual matches. An interested observer has been able to note with pleasure, that the Swedish speaking athlete, who generally belongs to the upper classes, has the same active power and stamina as his Finnish speaking comrades, who generally live in simpler ciscumstances.

Among other means, that have been proved to strengthen the interest of the pupils for sports, may yet be mentioned the matches that are arranged between the schools of the same town. In such towns as have two or more schools, athletic matches are annually arranged for a challenge prize, and the different schools send representatives to take part in them, the number of representatives being in a certain proportion to the number of pupils in the respective schools. These matches comprise a number of exercises, among which »Ski-running» and prize-shooting seem to be obligatory. The other exercises are one in throwing, one in running and one in jumping.

A good many schools, in Helsingfors as well as in the country town have challenge prizes for matches between the different classes of the same school.

The object of these challenge prizes has naturally been to get the whole school and the whole class — or at least the greater part of them — to interest themselves for different sports and to devote their spare time to them. One has also wished, by providing such prizes, to counteract the wish of individuals to appear as »number one». In both respects it must be granted, that the object has been gained.

Besides the above mentioned exercises and matches, which are voluntary for all pupils, these have the opportunity to

take part, in out door exercises, in all kinds of ball games and other sports, which are directly superintended by the teacher.

From a hygienic point of view both the obligatory and the voluntary sports have had a very good influence. The youths have in a higher degree than before begun to interest themselves for out-of-door life and the athletics have evidently strengthened their will, developed their body, their power of work and given them better health.

»Ski-running» is also very popular among the girls. Skating is practised by both sexes also.

What has been said above about the boys' interest for all modern athletics, can also be applied in a high degree to the students at the University and the Polytechnical Institute.

Not only do the students, in a higher degree than in a good many other countries, take an active part in general Sports, which have of latter years developed very much, but they have among their own class annual matches for a challenge prize, these matches comprising two permanent and two annually changing exercises. The first are, as in the matches of the schools, prize-shooting and »ski-running», in which latter sport many a Finnish student has shown great strength coupled with a remarcable speed. The separate »nations» among the students take part in the matches, and it is a fact that up to 70 or 80 per cent of the male members of these »nations» have taken part in them. These matches are, as regards the number of the competitors, the greatest in the North. As an example may be mentioned that in 1906 not less than 318 students took part in the running and more than 200 threw discus.

If the interest for free sports is at present great among the students of the University, the same can be said in, possibly, a still higher degree of the students at the Polytechnical Institute. There has been formed at this college a Sports Club, which has shown great activity and power of collecting the greatest part of the pupils in the Institute round the flag of the sporting interests. Especially in Football and Skirunning the Polytechnics have a very high position here in Finland.

The sports in the people's and professional schools of Finland only comprise Ski-running. The pupils at the Training Colleges for people's school teacher have, however, very much interest for all kinds of sports.

There has been formed a Gymnastic and Sporting Union, to which the greater part of the school clubs belongs, with the object of conducting and regulating the general sporting interests in Finland.

Ivar Wilskman.

Baths.

Without doubt there is no nation in Europe attends to the cleanliness of the body in such a degree as the Finnish people. To every cottage, even the smallest, belongs without exception a separate building, in which the owner, with all his family, has, at least once a week, a vapour bath. During certain times of the year, a bath is taken every day. These vapour baths are generally very hot and are, in all seasons, followed by cooling air baths, in the summer sometimes by sea baths. It can, therefore be said, that all the country children have, as a rule, plenty of opportunity of having cleaning baths.

In the towns the conditions are not quite so good. In the minds of most people the idea is certainly prevalent, that bathing is a main necessity of health, but economical circumstances forbid a number of town families to use regularly the different kinds of warm baths, which can be had now even in the smallest country towns for a very nominal fee.

In such towns as have water supply in the houses, every new middle sized house is provided with bathrooms and it can be said as a rule, that children living in such houses, have a warm bath at least once a week. A large number of the older schoolboys attends, we are happy to say, oftener than this to the cleanliness of his body. The general way to do this is to take a cold rub down. During the last years a good number of schoolboys have begun to take hot shower baths. This applies especially to the pupils in such schools, whose gymnastic halls are provided with douches. It has been proved that the greater part of the pupils prefer hot baths (42°—45° Cent.), after gymnastics, to warm baths (32°—38°) or cool baths.

The same result has been arrived at in the University, where the students since 12 years, have the opportunity to

have shower-baths of different temperatures after the public gymnastic or fencing exercises.

The Finn, like many peoples of the East, generally likes hot baths. For cold water baths he has, as a rule, no affection. This is also the reason, why in our land with its many lakes and extensive coasts, the knowledge in swimming is less than might be wished. One may, nevertheless, dare to state, that this knowledge is greater than in most European countries. It has been noticed, that swimming is generally practised by children and youth, living in the vicinity of streams, rivers and small lakes, whereas it is less frequent among those residing near the sea and larger lakes with their cold water.

In the towns, the conditions are, in this respect, comparatively good. During the last decades a very intensive work has been laid down on raising the knowledge of swimming in the whole country. Up to now, this has, however, principally benefited the inhabitants, and especially the youth, of the towns. In thirteen towns there are now special, organised swimming schools, in which rational instruction is given in swimming, saving life and treatment of drowned persons to both male and female pupils. In certain of these schools the number of pupils has been very large for our conditions. F. i. the number of pupils at the school of the Helsingfors Swimming Union was in 1906 not less than 1830. In Tammerfors with its 40,000 inhabitants the corresponding figure was over 500.

With the intention of developing good teachers of swimming, the »Finnish Society for Saving Life at Sea» gives every year a number of stipends to such persons, who wish to become competent instructors or teachers in this profession. These measures have had very satisfactory results and greatly benefited a number of the small provincial towns.

As an approximate standard for the general knowledge of swimming among the school children in the towns may be taken the result, which was arrived at in Helsingfors in 1902. The research was made with 10,900 pupils of the ages 7—20 years, and it was found, that of these 6,102, or about 56 per cent, were able to swim. Of these, 3,588 were boys and 2,514 girls. Of the Finnish speaking boys, 64,8 % were able to swim, and of the Swedish speaking 62,7 %. The corresponding figures for the girls were 45,4 % and 49,8 %.

Among the pupils of the secondary schools the knowledge of swimming was in the same year quite satisfactory. In the classical schools, 86,2 % of all the pupils could swim. The highest percentage was found in the largest school of the town, with 94,9 %.

Of the pupils in the people's schools of Helsingfors, 44,5 % could swim, of boys 52,3 % and of girls 36,8 %. When entering the school, every fourth of the seven years old boys could swim, but only every sixth of the girls. On reaching an age of 13 years, 90 % of all the pupils in the people's schools could swim, and for older boys the percentage was 97 %.

Regarding swimming in the provincial towns, it has been found that the conditions, especially regarding the growing generation, are not any worse than in the capital. One can, therefore, state, that the greater part of the country's youth in the towns, can swim. And this ability is sure to increase in the nearest future, because one can hope, that the instruction in gymnastics will soon comprise practise in s. c. dry swimming.

Ivar Wilskman.

Holiday Camps.

Every summer, from most of the larger towns of Finland, poor and weak pupils of People's Schools are sent to wholesome country places for recovering their health through the influence of pure air and suitable nourishment. For this purpose the pupils are picked out by a physician (School-Doctor or Medical Officer of the town) who also cares for the weighing and measuring of the children at their departure and return. Such holiday camps generally are managed by one or two female or male teachers, at the expense of the respective town.

Holiday camps from the city of Helsingfors (125,000 inhabitants) have been arranged for many series of years by the Association of Teachers of People's Schools i Helsingfors. Tubercular children are boarded separatly. The expenses are covered by the town and through funds.

In Tammerfors (40,000 inhabitants) the Ladie's Association

of that town has arranged holiday camps for pupils of People's Schools since the summer of 1891.

The average cost per day for every child in these holiday camps, amounted to 53 penni (5 d), including travelling-expenses, salary to managers etc.

Åbo the ancient capital of Finland, 45,000 inhabitants, has annually, beginning from 1889, sent weak People's school-children to holiday camps. In the report for the school-year 1903—1904 on the People's Schools of said city there is a statement of the number of pupils, who 1889—1904, have been supported and cared for in such camps or boarded in private families as well as of the cost thereof. Some of these details follow:

Years	Number of Children	Cost			
		Average per Child		Total in Finnish Marks	
		Marks	Penni		
1889	40	30	04	1,201	44
1890	85	30	42	2,585	57
1891	123	37	22	4 577	53
1892	130	32	34	4,204	71
1893	135	29	47	3,978	33
1894	144	29	68	4,274	57
1895	144	28	62	4,121	74
1896	152	28	72	4,365	63
1897	146	31	45	4,592	20
1898	151	30	84	4,656	28
1899	163	27	95	4,556	11
1900	170	29	53	5,020	29
1901	163	30	25	4,956	66
1902	171	32	—	5,722	78
1903	141	33	10	4,749	36
1904	156	30	14	4,729	47

The state of health in all holiday camps is reported as very good. Weighing of the children on their setting out and returning show every boy to have increased, on an average with 1,54 kilo and every girl 2,2 kilo. A special committee consisting of the Inspector of People's schools of said city, two female and one male teacher are appointed to arrange and superinted the holiday camps.

Since 1905 the town of Vasa (19.500 inhabitants) has yearly sent out three holiday camps of pupils from the People's schools.

The cost of these amounted to Fmk 40: 53 per child. The expenses were paid by the town.

From Uleåborg (18,000 inhabitants) pupils of People's Schools were sent to holiday camps, the first time in the summer of 1901, under the guidance of a female teacher.

At present the Board of Industry are working out statistics concerning labour of People's school children, out of school, in Helsingfors, Åbo, Tammerfors and Viborg (36,000 inhabitants) and about all circumstances related thereto. This research comprises a total of 20,256 children in said towns, whereof 9,862 boys and 10,394 girls. Among other interesting points it is ascertained too in what proportion pupils have got the opportunity of residing in the country and for how long a time every year.

The statements show that, in said towns, the following numbers of People's School children during the last summer (1906) have passed shorter or longer time in holiday camps.

Helsingfors	4,097	or 50	per c.
Åbo	2,239	» 45	»
Tammerfors	2,398	» 59	»
Viborg	1,480	» 49	»

The time the children were dwelling in the country was as follows:

	In Helsingfors:	*In Åbo:*
1 week	405 children	208 children
2 weeks	418 »	268 »
3 »	219 »	132 »
4 »	427 »	211 »
6 »	482 »	359 »
2 months	488 »	250 »
3 »	1685 »	811 »

	In Tammerfors:	*In Viborg:*
1 week	405 children	248 children
2 »	321 »	224 »

	In Tammerfors:	*In Viborg:*
3 week	176 children	108 children
4 »	394 »	164 »
6 »	226 »	97 »
2 months	265 »	138 »
3 »	611 »	501 »

Hjalmar Basilier.
Inspector of People's Schools.
Member of the General School-Board.

Home and School.

In former times, home and school were total strangers. The reasons for this total and very bad estrangement between these two principal centres of education are to be found on the one hand in the formerly prevalent opinion of the school's object, on the other hand in certain social conditions.

The school, it was held, had no other duties towards the child than to fill its brain with a lot of knowledge. That a sound and natural development of the body should go together with the intellectual development and form a natural foundation for all education, the school never considered. One did, therefore, hardly give any attention to the hygiene of education, either at school or at home.

The pedagogical development has, however, made evident, that even the school-boy's and girl's body and soul are dependant of one another and that the school shall attend to the development of the former also. The hygienic element has, therefore, so to speak, entered the school door as a relentless claim. The school cannot any more leave the health of the pupil without attendance. And the principle of education in the homes, more and more developing in favour of education of the body, the school and the home cannot any more avoid meeting in their exertions to reach the same goal. The respect for the individuality of the pupil, which is growing more and more in the educational world, tends to the same object, as well as the fact that, if the school shall act educationally, it must take into consideration the individual possibilities of development of the different pupils.

The interests of home and school having found mutual points of contact, a cooperation, even if still incomplete, has grown between home and school. The school respects the home and its interests more than before, and makes in certain cases enquiries about the opinion of the home regarding the bodily and mental abilities of the pupil.

A bridge between home and school was built in our country, when the girls' school was introduced by the side of the boys' school, previously reigning alone. The home felt more confidence for a school, where girls were educated, where the teachers were both women and men and where, therefore, a more homelike spirit reigned than in boys' school. It certainly took a long time, before this mutual feeling was transplanted to the boys' schools, but even this came in time.

The cooperation between the home and even the boys' school was later on influenced by the private schools and especially by the now so common mixed schools.

In a school, where boys and girls are educated and grow up together, where men and women act as teachers, where a man and a woman lead together, there the work is carried on in an altogether different way than in the old-fashioned, slentrian-filled separate school. The work in a mixed school naturally forms itself more like the work at home, in which both sexes take part. Life in such a school resembles life at home, where one tries to attend to both the general hygiene and the individual wants. The beauties of family life, the mutual attentions to all its members are transplanted to the school. The peculiar characteristics of both sexes are brought into contact with the life and work at school, exactly as at home, and these gain, therefore, in richness and colour.

Home and school in Finland admit now that they require one another and that they only by going hand in hand can execute a succesful educational work, especially as regards the health of the pupils.

Regarding first of all the absence from school, most schools now demand a written certificate from the home or lodging house, in which certificate the day and number of missed hours must be given. Only in a very small number of schools the reason of absence is also demanded, principally in the private schools, of which the greater number are mixed schools, and, if illness be the reason, the nature of this illness. By means

of this cooperation between home and school the hygienic interest is raised on both sides, and the school is in a position to make up statistics on the health of the school with the help of these reports of absence. Such statistics are to be found in the annual reports of certain schools. On request made by parents or guardians pupils in the private schools are alloved to be free from attending certain lessons for a longer or shorter time. This request should, as a rule, be based upon a doctor's report.

In case of infectious diseases among school children a cooperation between home and school has been gained therein, that the home is requested by the school to report immediately to the school, when such a case occurs in the home. Thereby the school has the opportunity to desinfect everything in the school, with which the pupil has come in contact: class-room, hall, stairs, desks etc. By cooperation with the home it can be, when necessary, avoided, that persons (teachers, comrades etc.), who may live in the same family as the infected pupil, visit the school and carry the infection with them. There is certainly still a lot to be done as regards cooperation between home and school in cases of infections diseases both at school and at home, and it must be admitted, that the measures taken for this purpose in all the schools of our country are no quite sufficient, but great advances have been made.

Home and school have not, as yet, seen the great importance of united work as regards hygienic way of working and living of the children, a correct distribution of work, amusement and rest, distribution of work during the different hours of the day, a wholesome arrangement of meals and first and last enough fresh air for the growing generation.

Something, that also has a great effect upon the health and work of the school children, both at home and at school, is attending amusements and festivals, which often last till late at night. In the school law now in force it is decreed that children, who have not their parents in the school town, must, every time, they wish to visit public places of amusement, ask permission of the head master or mistress of the school. Although this statute has been made more for moral than for hygienic purposes, it attends to the latter, without doubt also. The school can, by means of this statute, control

the pupils' health, morals and life in general, if the pupil live in a lodging house, but this control does not touch the home, which is a pity, as a number of homes allow their children, especially the girls, to amuse themselves to the cost of their health.

In some Mixed Schools it has nevertheless been the custom that pupils, with parents in the same town informe their head-master when they visit public amusements. As a rule, parents have willingly met this wish of the School, and thus the school has more chance of controlling the cause of the lack of study or the failure in health of the pupils.

The school ought, in order to obtain a base for ascertaining the state of health of new pupils (past illnesses, hearing, seeing, etc.), to consult the homes by means of special inquiry-sheets.

Here, in Finland, we are still behind in this respect, only in a few institutions have some trials been attempted, and then with good results.

With a view of cooperation between Home and School, chiefly in our capital, there have been arranged what might be called Parents-meetings, at which different questions are discussed, touching the pupils' relations to the school and the home, their learning, state of health, pleasures, private lessons out of school, etc. The advantage of such meetings cannot be appreciated too highly, the teachers in this way come into contact with the parents of their pupils. From time to time parents also pay a visit to the school to learn about the progress of their children. At such occasions a great deal of information, concerning the school and the home, may be gathered through discourses with the heads of the classes or teachers. On the occasion of festivals at school, parents and relations are generally present.

As it appears from the above, the cooperation between Home and School is still not quite satisfactory in Finland. Meanwhile the pedagogical evolution is progressing favorably with regard to that desirable reform.

Lucina Hagman.
Head mistress of a Finnish mixed school.
Member of the Parliament.

Public and Private work for the benefit of poor School-Children.

The people of Finland have always been willing to assist poor and gifted school-children, and especially these last decades a great many children of humble artisans, peasants or labourers have been enabled to attend higher schools, more perhaps than in any other country of Europe.

The struggle of poor pupils for higher education is also facilitated by donations, granted by private persons, and of which stipends are distributed among poor pupils during their school time. Here two circumstances, peculiar to Finland, may be mentioned. One is the custom of lending money for study to poor pupils, not only when going to school, but especially on their admission to the University, Polytecnical Institute or other institutions. The second circumstance is, that our poorest school-children, especially in smaller towns, receive their meals, for instance dinner, with certain families. Gradually, popular interest for supporting poor children during their school-years passed to those of the Peoples-Schools. In towns, as well as in the country, private persons and local benevolent associations provide school-children with food and clothes and with school-books. Pupils attending a People's-School have to buy their own books, only the poorest obtain such at the cost of the school. Government has now placed at the disposal of the General School-Board 20,000 marks, for the year 1906, as a help to the rural parishes in their purchasing of books and other materials for poor pupils. And, in the present year, some rural parishes have resolved to furnish all their People's school pupils with books and copy books gratuitously. Thus in Finland, the development of the instruction in the People's-Schools tends to be entirely free of cost.

Many private persons have shown their desire of promoting the creation and development of People's Schools by means of testamentary dispositions. Thus, there are four independent donations, each of about 200,000 marks, made in the names of Ahlman, Furuhjelm, Kronberg and Alopæus, of which the one, instituted 1868 by K. H. Furuhjelm, was expressly destined for the good of the most promising and poorest children in rural parishes, so that they might have the opportunity of attending People's- and Professional Schools all the year round.

From a hygienic point of view, two Societies working for the benefit of poor pupils merit a particular mention. The elder one is called *People's Schools and Pupil-homes*, (Folkskolor och elevhem), founded 1893 in consequence of an article written by the Poet *Z. Topelius* under the title of »Tio penni för skolan». This society has in view to encourage the establishing of People's Schools in rural parishes with a scarce population, and to that effect some People's Schools and Homes have been founded and supported in the poorest and most neglected parishes, such as Suomussalmi, Salmis, Kivinebb, partly also assistance given for the institution of pupil-homes in the most Northern parishes, as Utsjoki, Kuusamo, etc. All funds necessary to these operations the Society obtaines by fees of members or from occasional contributions.

Society for the nourishing of School Children (Koulukeittoyhdistys), quite young, having existed a little more than a year. As the name indicates, their principal object is to procure more substantial food for poor school children. According to statute, the Society is directed in Helsingfors by a Board of nine members who appoint agents for the country. Conformably with instructions received and aided by the local population, these agents have to arrange a warm meal for the pupils of the People's School every day. The food is generally cooked in the workshop of the respective school. Older girls are engaged in turn to assist cooking. The cost varies from 7 to 15 Finnish pennies per meal of school-soup, per pupil.

The annual reports show that the number of pupils increases with the introduction of distributing school-soup, also that the attendance of school becames more regular and that the children do their task with more mind and spirit.

The question of nourishing poor school-children is now fairly discussed in our press, thanks to the report of the School Doctor Max Oker-Blom, on the state of nourishment of the pupils in the lower classes of the People's Schools in Helsingfors. In autumn of 1906 1,569 pupils, at about 7 years of age, had been examined, and it was found out, that the average percentage of insufficiently fed pupils amounted to 15,2 %. A comparison of the schools of Helsingfors set forth a great disparity with regard to the children's state of nourishment in different town-districts.

The political condition of Finland, restored by the Mani-

fest of Nov. 4:th 1905, has, spontaneously, animated the acceleration of compulsory school-attendance and of caring for poor and neglected school children. Extensive new Bills are now drawn up to that effect.

Hjalmar Basilier.

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7. Measures against infectious Diseases.

According to the Public Health-Act of 22:nd December 1879, the Parishes are obliged to take the necessary steps for preventing the spread of infectious diseases. The direction and superintendence of such proceedings, belong in rural parishes to the District medical Officer, (Provincialläkare) and in towns to the Board of Health, assisted by their Public Health-Service. (V. pages 11—13).

The Public Health-Act charges every master of a household or his representative with compulsory notification to the Board of Health of every case of infectious disease in his family.

In order to establish uniformity in the measures against the most common epidemic diseases (Scarlet fever, Diphtheria, Measles and Whooping-cough) the Finland medical Society has drawn up a Memorandum concerning the Schools as follows:

I. a) All pupils affected with any of the above mentioned diseases are to be held from attending school.

b) A pupil falling ill of any of the above diseases, his or her parents or guardians immediately have to advise the head master of the respective school of the fact. If children of the same family attend other schools, the sick-case is to be communicated to their head masters. Notification to be given if a family member not going to school falls ill. On receipt of notice that any of the school-pupils is taken ill or supposed to be ill by any of said diseases, the respective head master has to report the case to the Board of Health. The head master has also to inform the parents of any pupils, in the same school-class, on cases of the said diseases.

c) The Board of Health shall, on receiving the reports, notify respective head masters about cases of said diseases occurring among pupils as well as in families with school-children.

II. a) Pupils being ill must be kept from school, provided the medical Officer or Board of Health do not order otherwise, 7 weeks in a case of scarlet fever, and 6 weeks in a case of diphtheria, when a bacteriological research has not been effected, and in cases of measles 2 weeks, all counted from day of outbreak and, in a case of whooping-cough, as long as convulsive cough occurs.

b) Before reattending school the child, who has been ill, must be well cleaned by baths and his clothes and the sick-room disinfected, in cases of scarlet fever and diphtheria in a way prescribed by the Board of Health, and in cases of measles and whooping-cough thouroughly cleaned and ventilated.

c) After scarlet fever, diphtheria and whooping-cough a certificats, issued by the physician or the Board of Health, is to be presented to the head master of the school that the pupil may, without any danger of infection, go to school. Whenever the Board of Health find circumstances necessitate, such a certificate is also obligatory in cases of measles.

III. a) School-children residing with a family, in whose house anybody is taken ill of scarlet fever or diphtheria and who cannot be removed or isolated in a way approved by the physician, are to be kept from school as long as the disease lasts. When removal or isolation is possible, children, not having gone through such illness before, must stay away from school 10 days in a case of scarlet fever and 7 days in a case of diphtheria, lest the treating physician judge otherwise. Pupils having previously been afflicted with scarlet fever are permitted, in cases of the said illness, to assist at school as soon as a removal or approved isolation has been effected, he being cleaned through baths and clad in clean clothes.

b) School children residing with a family, where any one is taken ill of the measles or whooping-cough, may, dependent on the decision of the Board of Health or the physician, without being removed, go to school as soon as 14 days have elapsed, after a case of measles, and 10 days after a case of whooping-cough. However, a pupil, who has previously gone through the measles or whooping-cough, may, in cases of the same illness, be allowed, subject to physician's decision or that of the Board of Health, to continue school without any interruption.

IV. Instructions given in articles I—III also concern a

teacher, if he or any member of his family fall ill. Yet a teacher, in whose household any member is taken ill of scarlet fever or diphtheria, may attend at school on removal or approved isolation, he being in due time cleaned through bath and furnished with clean clothes.

V. In cases of above mentioned diseases within the school-house, the sick must be removed to another place and his dwelling be well disinfected or, if not feasible, the school to be closed during the term fixed in article II.

VI. In cases of a spreading and malign epidemic among the pupils of a school, the closing may be effected on approval by the Board of Health or the respective medical officer.

VII. a) When epidemics are raging a particular care is to be taken in the cleaning and ventilating of the school-rooms.

b) When an epidemic of one of the above diseases is menacing or current, every child that does not seem to be quite well and, in a case of measles, particularly such manifesting catarrh, cough or watery eyes, have to be sent home from school without permission to return before a medical certificate is produced concerning the absence of infection or the disappearance of all suspicious symptoms.

The establishment of hospitals for Epidemic diseases and other dispositions for isolating the sick as well as for disinfection are incumbent on the Parishes.

A. Palmberg.

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8. Medical attendance of the Schools.

The necessity of a more effective supervision of the school-hygiene, especially in regard to the individual wants, has lately come to the front and the idea to have special doctors for this purpose is being supported by the public. The question of issuing a public Act on this matter is at present under debate in the Finnish Senate.

Special School-doctors are at present attached chiefly to private schools, to the training colleges for teachers in people's schools, to the special schools and to the people's schools in certain of the larger towns.

The duties of the School-doctor of the people's schools in Helsingfors are specified in his instruction, printed here under:

»The duty of the School-doctor is to supervise the hygiene in the people's schools, in which respect he has:

1) to attend the meetings of the School board;

2) to assist the inspector, head-master, head-mistress as well as teachers with all such advice and directions, as the conditions in the school may require;

3) to examine all new pupils in the beginning of every school year, as per program, which has been fixed by the Board of Health in conference with the school inspector and school doctor, and make notes on the examination on separate formula for each pupil;

4) to give the respective teachers directions regarding sickish children, on account of the results of his examination, and to inspect the instruction in gymnastics;

5) to give special attention to such pupils in the lowest class of the people's schools, as are said to be intellectually behind or weak-minded;

6) to visit every class, if possible, four times during the school year at suitable times and there to examine those children, for which it may seem necessary, thereby also examining the hygienic conditions of the school rooms, especially as regards ventilation and cleaning and, in times of epidemics in town, to give special attention to the state of health in the school;

7) to examine the conditions in the home of a pupil, when the medical attendance of the school or the pupil make it necessary;

8) to be in attendance in the board room of the schools at times, which the school board may decide;

9) to make annual reports over his work for insertion in the general report of the people's schools.»

The salary of the School doctor is 6000 Finnish marks (£ 240) and his duties are limited to the school terms, which last from September 1:st to the middle of December and from the middle of January to May 31:st.

The number of pupils in the people's schools of Helsingfors is at present about 8300 of a population of slightly over 100,000 persons.

The individual School Hygiene.

In Helsingfors, the order of examining the pupils of the people's schools is as follows:

Every school child is examined four separate, regular times during its school days, which last six years, viz.: during the first school year (the first class of the lower people's school) twice, and once during the third year (the first class of the higher people's school) and at last once during the sixth — in most cases the last — school year (the fourth class of the higher people's school).

The reason for examining the pupils of the first class twice is the circumstance, that the children at the time of the first examination, which is held about a month after their entering the school, are still too shy to give clear answers to such questions, at the doctor may be obliged to make during the examination; this refers especially to the power of sight and hearing.

Every pupil has a special »Bill of Health», which is filled in with the observations made during these examinations. This Bill of Health is made up as below:

Bill of Health

1. for the pupil in the people's schools of Helsingfors:

.....

Born on ..... 19 in .....

Entered on ..... 19 in the school .....

Removed on ..... 19..... to the school .....

» » ..... 19..... » » » .....

» » ..... 19..... » » » .....

» » ..... 19..... » » » .....

Left on ..... 19.....

2. Revaccinated in the year: .....

3. Before school suffered from: .....

4. During school-time suffered from: .....

.....

.....

5. a. Examination			b. Class	c. Age		d. Build of body	e. Colour of skin	f. State of nourish-ment
Year	month	day		Year	mon.			
19								
19								
19								
19								
19								
19								

Examination made		/ 19	/ 19	/ 19
6.				
a. Anaemia				
b. Nose-bleeding				
7.				
a. Nervosity				
b. Head-ache				
c. Insomnia				
8. Tuberculosis in	a. lungs			
	b. osseous system			
	c. glands			
9. Other diseases or faults of	a. lungs			
	b. brain			
	c. abdominal org.			
	d. spine			
	e. extremit.			
10.				
a. Skin diseases				
b. Parasites				
c. Hernia				

Remarks .....

Examination made		/ 19	/ 19	/ 19
11. Diseases of	a. Eyelids			
	b. Eyeball			
12. Sight	right eye			
	left eye			
13. Refraction	right eye			
	left eye			
14. Oral diseases				
15. Hearing	right ear			
	left ear			
16. Tooth-diseases				
17. Diseases of	a. Nose			
	b. Throat			
	c. Larynx			
18. a. Voice				
b. Speach				
19. Weakness of mind				

20. Examination			Class	Age		Weight kilos	Height centim.	Chest measure		Remarks
Year	month	day		Year	mon.			inhal.	exhal.	
19										
19										
19										
19										
19										
19										
19										
19										
19										
19										

Ad notam:

1. Numbers 1, 2 and 3 to be filled in by resp. teachers in the first class of the lower school in the beginning of September.

2. Number 4 to be filled in by resp. class teachers gradually at the end of each term.

3. Measuring and weighing for number 20 to be done by resp. class teachers once a year and for the same class, if possible, at the same time of the year.

4. Before being weighed and measured for height, the pupils are to take off their boots; the chest measure to be taken right across the nipples on the bare body with as deep inhalation and exhalation as possible. The weight to be counted in even 100 grammes and all other measures in even 0,5 centimetres.

5. Other notes to be filled in by the doctor and, in case of need, with the help of resp. class teacher.

6. The state of nourishment (number 5 f.) is to be expressed by the doctor with the figures: 1 = good, 2 = middling and 3 = bad and the resp. class teachers shall always have, in the class, near at hand, as per separate formula, a list of those pupils, whose state of nourishment has been given the character 3.

The purpose of these regular doctor's examinations is, besides collecting statistical material of general interest, to ascertain, on the one side, whether a pupil suffers from a chronic infectious disease, as f. i. open tuberculosis of lungs or glands, trachoma or skin-disease, which illnesses might mean danger of infection for the other school-children, suitable measures for evading the danger of infection being then taken at once. On the other side, the result of examining the power of sight and hearing give the necessary direction for placing the children in suitable places in the class-rooms. The discovery of any state of ill-health enables the doctor to order the child to seek rational attendance for its illness.

This order is given on printed forms, in which the pupil is advised to seek medical attendance for his or her illness on the other side of the form a list of district physicians general polyclinics and other medical establishments is to be found and the establishment most suited for the case in question is underlined by the school doctor. These formulas are as follows:

The pupil in the people's school .....

is advised to seek medical attendance for .....

.....

Helsingfors, ... 190 .

The doctor of the people's schools

Max Oker-Blom.

S. H. T.

Please give diagnosis.

Where the state of health of the pupil demands release from the compulsory gymnastics, the doctor gives him or her an order as follows:

The pupil .....

is exempt from gymnastics for a period of .....

.....

Helsingfors, ... 190.....

The doctor of the people's schools

Max Oker-Blom.

A list of those pupils, whose state of nourishment is bad or whose health in any respect requires special medical supervision, is made up as per special formula, and is always to be at hand in the class-room for the guidance of the school doctor when he visits the class.

The detailed program for the regular doctor's examinations is the following:

During the autumn term, all the pupils in the first class of the lower school are examined for the first time, their complexion and state of nourishment being noted, as well as any chronic disease and infirmity or defects, in the pupil's health. The organs of sense are, however, examined in detail at this examination only in case they schow evident infirmities, which demand immediate attention.

With this examination, the above named measures are taken

During the spring term (March—April) of the children's first school year, the second examination takes place with the object of testing the power of sight and hearing, the pupils who need it, being advised to get spectacles and any necessary special attendance.

This second examination is also for the purpose to ascertain, whether among the pupils are to be found intellectually so undeveloped children, that they must be sent to the help-school, which removal takes place if the consent of parents or guardians be obtained, at the beginning of the second school year.

The third regular examination is made in the beginning of the spring term (Jan.—Febr.) of the pupil's third school year

(the first class of the higher people's school) and is meant to revise the state of health of the pupil in all those respects, which have been made the basis of the first and second examination; special attention being now given to any infirmities of the lungs, which seldom appear at the early age of the children, when entering the school.

The fourth examination, which the children have to go through about the end of their sixth, and in most cases their last, year at school, in May, is intended on one side to ascertain the effect of school-attendance upon their health and on the other side to enable the pupil to choose a suitable profession or trade.

Max Oker-Blom.

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9. The Teaching of Hygiene in the Schools.

Instruction in hygiene at the present time is given more or less in nearly all schools in Finland.

At the University the more effective instruction in Hygiene began first at the time when it was considered as a separate scientific subject and, for the teaching and examination thereof, an extraordinary Professor was appointed in 1890, and a laboratory for its study was established. The extraordinary Professor was later in 1898 promoted to ordinary Professor.

The instruction is now given as follows: —

Lessons are taken throughout the academic year, and every student, towards the completion of this medical studies must, in addition to the regular lessons, work in the laboratory for studying the methods of disinfection and several of the more important chemical methods, which are used in hygienic examinations, and at the conclusion of the course must inspect and examine an »official building», »school», »theatre», »factory», etc., and report on the hygienic conditions thereof. Previous to the above mentioned course the student must have in the first two years of his medical studies taken a course in Bacteriology.

The instruction in Hygiene, which is intended to reach the greatest part of the people, is given in the Training Colle-

ges for People's school Teachers, and also in the people's schools themselves and has been given there continually from their foundation in 1863.

In the Training Colleges two hour's instruction is given weekly.

The portion of this great subject, which has been gone through in the Training Colleges, will be seen from the following extracts from the last annual report of the »Jyväskylä Training College» which shows the amount in each class.

1:st Class. One hour weekly.

The Human Body and its Functions. Bodily work. Gymnastic exercise and Sport. Digestion. Foods. Food and its Preparations. Water and Soil.

2:nd Class. One hour weekly.

Blood and its Circulation. Respiration. Air. Ventilation. Secretive Organs and Skin. The Bath. Clothing. Sexual Organs. Nervous system. Alcohol and its effects on the Human Body. Bacteries. Infectious Diseases.

In many Training Colleges the book of instruction used is »Hygiene» (by D:r Max Oker-Blom) containing 214 pages.

In the People's Schools Hygiene is taught along with Natural Science, and has attracted more and more attention in latter years since the decision of the Congress of People's School Teachers in 1890.

The Committee for Instruction and Reading Books for the People's Schools of Finland demanded in the year 1899 the continuance of the different branches of Natural Science in one Instruction Book, in which the following was considered the best order to follow: —

1. Zoology
2. Hygiene
3. Botany
4. Physics

The instruction of Hygiene must contain a short account of the construction of the Human Body and its functions in health and its treatment.

The instruction of the treatment of the body shall be given briefly between the instruction as to its different organs, and the instruction in nutritious foods and air shall be given more fully.

Further hygienic portion of the instruction book shall contain the following subjects:

1. The Human Skeleton
2. The Muscles
3. Digestion
4. Food
5. Water
6. The Blood and its Circulation
7. Air
8. Respiration
9. The Kidneys and Skin
10—11. The Nervous System and the Senses
12. Beverages and Stimulants.

Most handbooks, used in the schools, are written in accordance with this programme, and the teacher of course, adds as much as possible in verbal teaching. Those books contain also some information about the most common diseases. One of the books on the construction of the human body and on Hygiene, used in many schools, contains 62 pages. (Ihmisruumiin rakenuuksen pääpiirteet ja terveysopin alkeet. O. A. Forsström). As there are, according to the above named report, 60 hours a year during two years given to the teaching of natural science in the higher people's school, and the hours are to be divided between four different parts of the subject and besides many hours are used for repetitions and some are lost on holidays, it is clear that not very many lessons can be used for the instruction of Hygiene. The teaching of that subject depends very much upon the interest shown by the teachers of it.

The instruction in the training colleges for teachers and in the people's schools is carried on by the aid of the handbook or by discourses, and also partly by the help of pictures made for the purpose and by graphic tables.

In the girls schools Hygiene has been taught since 1886 one hour a week in the fifth class.

In the classical and modern schools, generally no instruction in Hygiene is given, except the few remarks on that subject that may be given by the teachers of natural science. In some schools, however, there have been, at least from time to time, lectures in Hygiene, and in many private schools, of

which there are a great many in this country, that subject is also taught.

It is to be mentioned that the public opinion seems to wake up to understand the importance of Hygiene, and voices are heard already demanding more instruction of Hygiene in the schools.

When speaking about the instruction of Hygiene in the schools a special attention must be drawn to the teaching of temperance and, in the latest times, of sexual Hygiene.

The Teaching of Temperance.

In all countries with organized temperance work it has been clear from the very beginning that the children and the growing generation ought to be won for that idea through the power of education. Therefore the comparatively young temperance movement in Finland turned a special attention to the education already at the first general temperance congress in 1883, and at the general congress of 1884 it was emphasized that in order to implant the idea of temperance in the minds of children:

1) Special temperance instruction was to be given in the schools, especially in the people's schools; and

2) Special voluntary temperance schools and temperance societies for children (Bands of Hope) were to be established.

In accordance with the nature of the Finnish people temperance work was for a long time carried on only by voluntary instruction, which still forms an important part of that work, whereas the official instruction, aided by the Government, has been quite insufficient up to recent times.

A lively development of temperance work among children began however only as late as in the middle of the nineties, especially supported by the »Opettajien terveys- ja raittiusyhdistys» (The Sanitary and Temperance Society of Teachers). As the work of that society was interrupted for same time, the greatest temperance organisation of the country »Raittiuden Ystävät» (The Friends of Temperance) overtook by a certain committee »Toivonliitto komitea (The Committee of the Bands of Hope) in 1900 that branch of the work. »The Friends of Temperance» have published a great many books

used in temperance instruction, handbooks, pictures, and other materials for object teaching, together with temperance literature for children. A Chief Secretary of all the Bands of Hope in Finland and ten councellors in different parts of the country are keeping up the interest and helping the leaders of the temperance schools and of the Bands of Hope with kind advice and support.

The temperance schools are meant to be for children between 9—11 years, the Bands of Hope for children of 10—15 years of age. All these schools are generally working in connection with temperance societies, and under their direction. In the beginning English methods of work served as examples for the voluntary temperance teaching, but in the course of years a new system, in many respects a very original one, has developed also in this branch of the work.

In 1905 14,522 children belonged to the Bands of Hope. Of these 1,025 took part in a prize competition in writing compositions. The Bands of Hope have principally worked in the towns.

»The Students' Temperance Association» has had a great influence upon the temperance work among the pupils of the secondary schools, and in most schools temperance associations, organized like Bands of Hope for more developed youth, have been established, with temperance instruction as their chief object. In 1906 there were such associations in 67 schools with 7,292 members in all. Every year they arrange competitions in essay writing, giving diplomas to the winners.

For more developed youth the Friends of Temperance have arranged so called »temperance examinations», a »general examination» (three different courses) and a »teacher's examination» (two courses). Especially many people's school teachers have passed at least the lower teacher's examination. During the last years about 600 examinations a year have been passed.

The Government began to support temperance work in the schools as late as in 1898, when the General School Board of Finland, in accordance with the sincere wishes of all friends of temperance, ordered the inspectors of the people's schools to urge the people's school teachers to give instruction on alcoholism in connection with the teaching of natural science, and to obtain suitable pictures, necessary for the purpose. The General School Board wanted to call special attention to

the continuation classes, in the programmes of which instruction on the nature and influence of alcoholic beverages ought to be inserted. Later the Board required that in the handbooks of natural science which are used in the people's schools, there has to be a short description of the influence of alcoholic drinks on the human body. In 1904 the General School Board asked the head-masters of secondary schools, the directors of training colleges, and the principals of girls' schools »to urge the teachers of natural history and hygiene to give instruction besides in the nature and influence of alcoholic beverages».

As a consequence of these stipulations temperance instruction is now gradually gaining more and more ground in the schools, where it has been practiced to some extent even earlier, on account of the fact, that most teachers have been in sympathy with the temperance movement, especially in the people's schools. As these stipulations of the General School Board, however, are not orders but only kind wishes, and it depends upon the teachers in question whether temperance instruction is given or not, those stipulations cannot, of course, fully serve their purpose. Among the friends of temperance therefore a strong opinion is growing, that demands compulsory temperance instruction in people's schools, in secondary schools, and in training colleges for teachers. This demand will very likely be fulfilled in the nearest future. In the people's schools of the capital town and of some of the greater towns there are already professional teachers of temperance, and this subject is inserted in the compulsory time table for three years in these schools.

Taav. Laitinen.

Sexual hygienic Instruction.

Up to very recent times sexual life with all that belongs to it was considered as a range, which ought to develop itself, without the interference of any hygienically leading hand. Only the most evident signs of an unsound development of sexual life, the veneric diseases, made the parties concerned take the necessary measures for fighting these diseases. The less evident damaging effects of sexual aberrations were left

alone to grow and develop further under the mysterious cloak of silence. Other ideas of our duty towards the young number, who in time shall direct the fate of the community, have, however, broken ground; we have come to an insight of the fact, that knowledge and instruction is power even in this delicate matter. One has thonght, that it must be of great use for the growing generation to get, while there is still time, a correct insight in the dangers and bad influence, to which they expose themselves and their health through digressions in matters sexual; youth may then at least know what these may lead to, and weigh the pros and cons for itself.

Upon proposal made by the Board of Heath, the directors of the people's schools in Helsingfors decided, in the beginning of 1906, that lectures schould be held on sexual hygiene for the pupils in the highest classes of the people's schools. The doctor of these schools has, therefore, in May 1906 and 1907, or just before the children leave the school for ever, held such a lecture for the boys in the fourth class, one for each school. A lady doctor has held corresponding lectures in the highest girls classes.

In the fourth class of the higher people's school the age of the pupils is about 12 to 14 years. One would certainly like to find an opportunity to speak to the youth of a little more advanced age, f. i. of 16 to 17 years, as a number of circumstances, which cannot be duly understood at 13 to 14 years, a few years later could be explained with a greater chance of success. Most of the pupils of the people's school, after finished courses coming out into the world and thereby evading every hygienic guidance in these matters, the sexual-hygienic instruction in view must take this fact into consideration. It is, therefore, a duty to implant in the mind and memory of the growing generation everything, that in this respect is of consequence to know at its present age, as well as for the approaching turning-point, the time of puberty.

It follows of course, that the duty is perplexing and that it is difficult to make the right choice of what and how much shall be said and how it shall be said, so that the child may keep something thereof for the future. First and foremost it is necessary to explain to them that the genital parts, as well as all other organs, require hygienic attendance for the sake of the local as also the general health; the dangers of mischea-

vous play with the genital organes must be duly emphasized and youth be instructed, to go with full confidence to the doctor, when in need; if the school have a doctor, to go to him. The veneric diseases must be mentioned and the many dangerous influences of bad habits and immorality on matters sexual must be duly accentuated etc.

In some other towns the authorities are having the question of such lectures for the school children under debate.

Max Oker-Blom.

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10. Special Schools.

The Special Schools in Finland comprising the establishments for deaf-and-dumb, blind and feeble-minded are. as the schools for normal children, superintended and ruled by the General School Board. There is a competent functionary, the Inspector of Special Schools, on whom the direction of those schools principally depends.

Instruction in special schools is imparted by the head master and teachers of the establishment.

Schools for Deaf and Dumb.

Compulsory school attendance not being as yet introduced in Finland the Schools for Deaf and Dumb are either establishments for children or for adults. Into the former children of the usual school age are admitted, duly fixed at 8 to 10 years, in exceptional cases at 7 to 12 years. In the latter deaf and dumb men and women, having neglected the instruction in schools for children and reached a minimal age of 18 years, are received.

The duration of time for staying at the Schools for Deaf-and-Dumb is fixed for children to 8 years, and for older pupils to 4 years.

In the schools for Deaf and Dumb the pupils are disposed, according to their ability, into four particular parallel divisions, to which is added a fifth division for feeble-minded deaf and

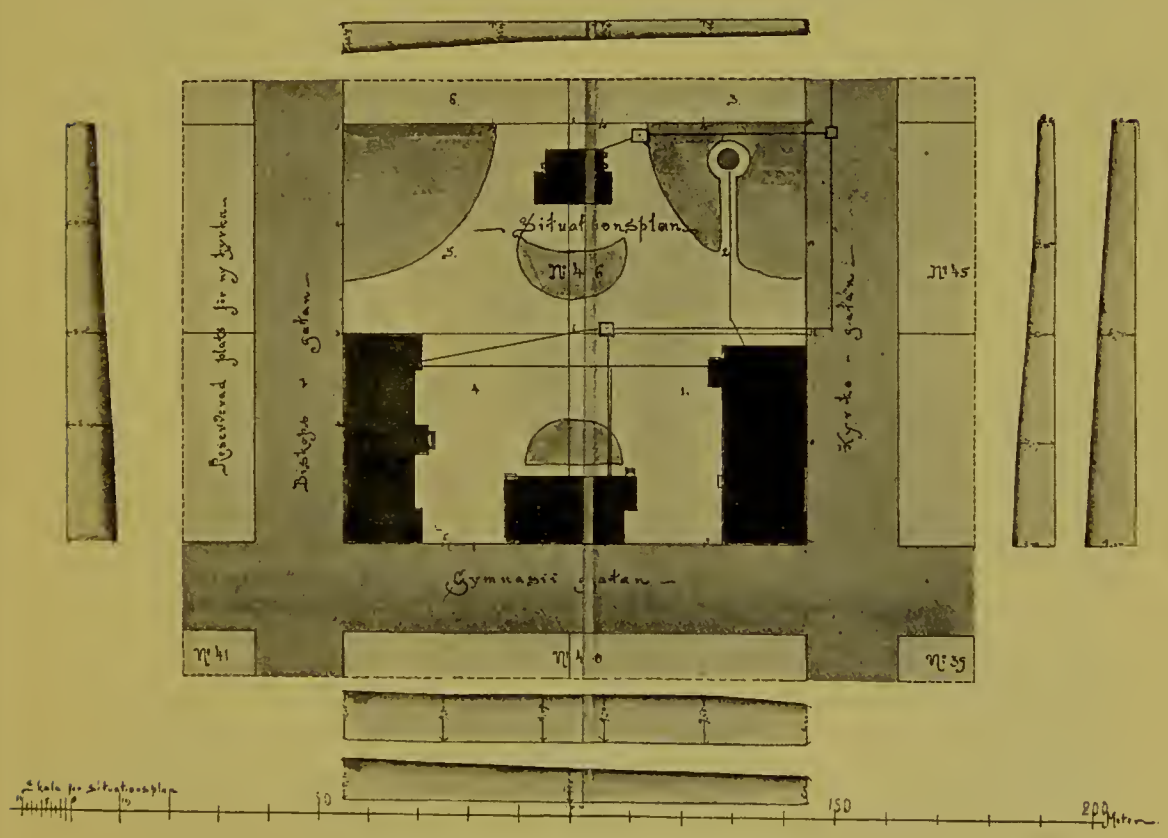
dumb. These parallel divisions go by the name of *A*- and *B*-classes of the Speech School and *A*- and *B*-classes of the Writing School and the Class for feeble-minded deaf and dumb.

Expressed in percentage, the pupils of the different divisions would look as follows:

On the	A-division	of the	Speech School	are	taught	45 %
» »	B- »	» »	»	»	»	38 »
» »	A- »	» »	Writing School	»	»	9 »
» »	B- »	»	»	»	»	7 »
» »	particular division for feeble-minded				. . .	1 »
					Total	100 %

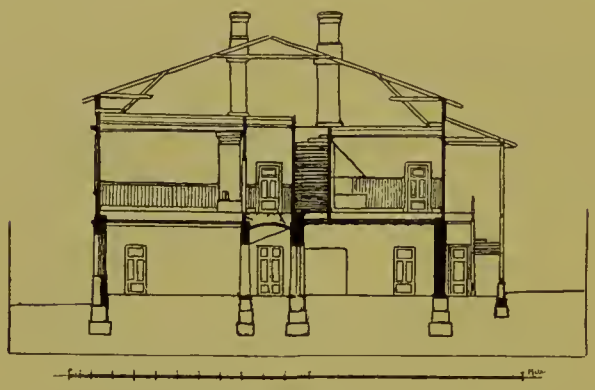
To be observed here, that the percentage of pupils varies as to years and to the quality of the pupil.

The instruction of the adult deaf and dumb proceeds during four years, the pupils being placed, according to their abilities, into two parellel divisions, consisting of four classes with courses of one year each.

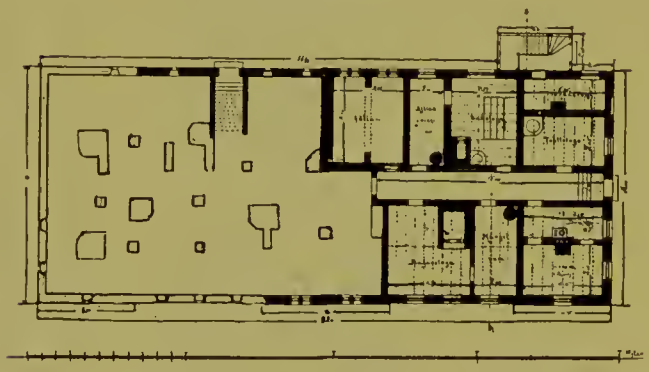


School for Deaf and Dumb. Borgå. Scheme.

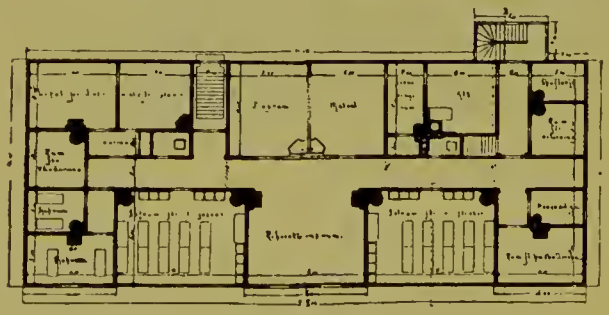
School for Deaf and Dumb. Borgå. House for Residentials.



School for Deaf and Dumb. Borgå. House for Residentials.



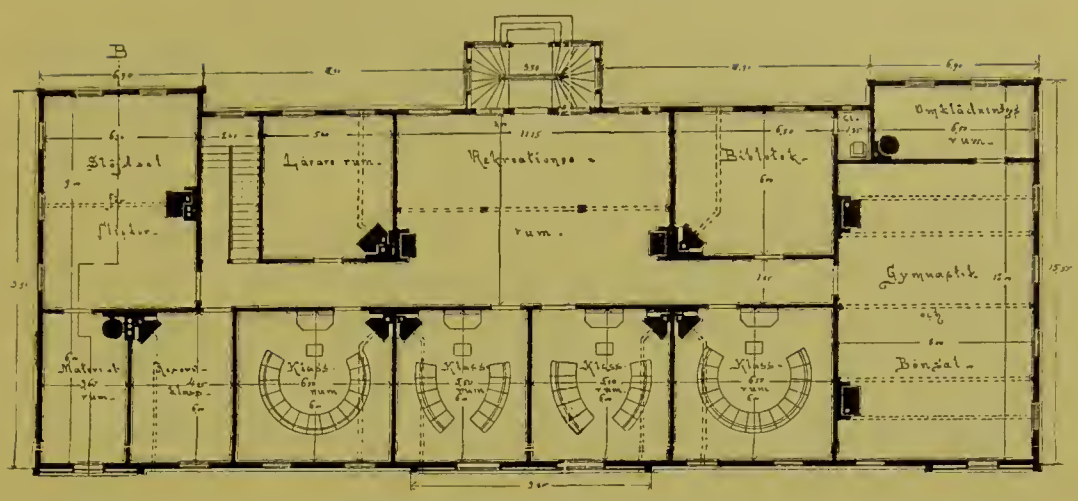
School for Deaf and Dumb. Borgå. House for Residentials Ground Floor. Bath and Laundry.



School for Deaf and Dumb. Borgå. House for Residentials. I Floor.

All schools for deaf and dumb children are partly residential schools. Pupils of the Proof classes, as well as older pupils, found to be wanting a special education and care, lodge in the school. The other pupils are boarded, through the school authority, in well-known homes of the neighbourhood. At the choice of homes such are preferred where the pupils get opportunity of gaining practical knowledge in manual labours or house keeping. More than two speech-pupils are seldom housed in the same family.

How the instruction is distributed in the different classes is seen below:



School for Deaf and Dumb. Borgå.

Hours of instruction in a Speech School, with a proof- and articulation-class (I) in three parallel divisions, and three school-classes (II, III and IV) in two paralled divisions. All classes having courses of two years.

Subjects of instruction and exercise	Number of class-hours a week								
	I a	I b	I c	II a	II b	III a	III b	IV a	IV b
Mother-tongue	25	25	25	18	18	15	15	12	12
Religion	—	—	—	3	3	5	5	6	6
Mathematics	—	—	—	4	4	4	4	4	4
Geography and Physics .	—	—	—	—	—	3	3	3	3
History	—	—	—	—	—	—	—	2	2
Gymnastics	3	3	3	3(3)	3(3)	3(3)	3(3)	3(3)	3(3)
Writing and Drawing .	2	2	2	2	2	2	2	2	2
Manual labours	6(6)	6(6)	6(6)	8(8)	8(8)	8(8)	8(8)	8(8)	8(8)
Total of week-hours	36	36	36	38	38	40	40	40	40

Note. Where two numbers of figures meet in the same column the first indicate total of hours for male pupils, the second total of hours for female pupils.

Hours of instruction in a Writing School, of three school-classes (I, II and III) in two parallel-divisions and courses of

two years, pupils having previously had two years' instruction in the proof class of a speech school.

Subjects of instruction and excercise	Number of class-hours a week					
	I a	I b	II a	II b	III a	III b
Mother-tongue	20	20	15	15	14	14
Religion	3	3	5	5	6	6
Mathematics	3	3	3	3	4	4
Geography and Physics	—	—	3	3	3	3
Gymnastics	3(3)	3(3)	3(3)	3(3)	3(3)	3(3)
Writing and Drawing	2	2	2	2	2	2
Manual labours	8(8)	8(8)	8(8)	8(8)	8(8)	8(8)
Total of week-hours	39	39	39	39	40	40

Hours of instruction in a School for Deaf and Dumb adults, with four school-classes and courses of one year.

Subjects of instruction and exercise	Number of class-hours a week			
	I	II	III	IV
Mother-tongue	22	20	16	14
Religion	3	4	5	6
Mathematics	3	3	3	3
Geography and Natural Science	—	—	2	3
Gymnastics	3(3)	3(3)	3(3)	3(3)
Manual labours	9(9)	10(10)	12(12)	12(12)
Total of hours per week	42	42	43	43

Theoretical instruction is given in the morning from 8 to 10 and from 12 to 3 P. M., practical excersises chiefly in the afternoon. On making up the time table the head master has to observe that hours of writing and drawing, as far as possible, intercept all theoretical instruction, or intellectual work of two hours.

Meals for Boarders and non Boarders:

Breakfast at 7 o. cl.
Lunch » 10 » »
Dinner » 3 » »
Supper » 8 » »

Breakfast of warm milk with bread or porridge with milk. Lunch, as well as dinner and supper, of a hot dish with bread and milk, at dinner often small beer. On sundays and holidays dinner of two dishes. Coffee and tea are served within the Special Schools only at festivals. For non Boarders the drinking of coffee is very common.

Schools for Blind.

Blind Schools are schools for children or working schools for adult blind men and women, the former with courses of 10 years, admitting pupils every other year. Of this school-time two years are spent in the preparatory division, 4 years in the school division and 4 years in the trade divisions, age of admittance being fixed at 8 to 11 years, exceptionally at 7 to 14 years.

Instruction in the preparatory and school divisions corresponds generally with the subjects and courses of the people's schools. The teaching of trades comprises, at present, in the first place brush-, basket- and mat-making, as also all kinds of female handwork.

Joinery is practised on a reduced scale, chiefly preparatory for excercise in manual labours and in order to emancipate brush making from contractors of brush handles. Among female handwork spinning has been introduced recently and weaving of plainer stuffs. Music is not practised as a profession, but only as a recreation. However pupils particularly gifted with talent for music, may get instruction to play the piano or the organ by specialists abroad. Extra instruction may also be granted, in certain cases, to pupils shewing a mind for other special occupations, of which may be mentioned massage, apparently interesting the blind women and in many cases affording to practisers a sufficient livelihood.

Hours of instruction in a Blind School for Children, with a preparatory (I), two school- (II, III) and two trade-classes (IV, V), class-courses of two years and admission of pupils every second year.

Subjects of instruction and excercise	Number of class-hours a week				
	I	II	III	IV	V
Mother-tongue and blind-reading . .	8	8	8	4	2
Object-instruction	4	3	—	—	—
Religion	3	4	5	1	1
Mathematics and book-keeping . . .	4	4	4	1	1
Etymology	—	—	1	—	—
Geography	—	2	3	1	1
History	—	—	2	1	1
Natural Science	—	2	2	1	1
Modelling	2	1	—	—	—
Gymnastics	3	3(3)	3(3)	3(3)	3(3)
Singing	2	2	2	2	2
Manual labours and trades	8	10	10	32	34
Total of hours per week	34	39	40	46	46

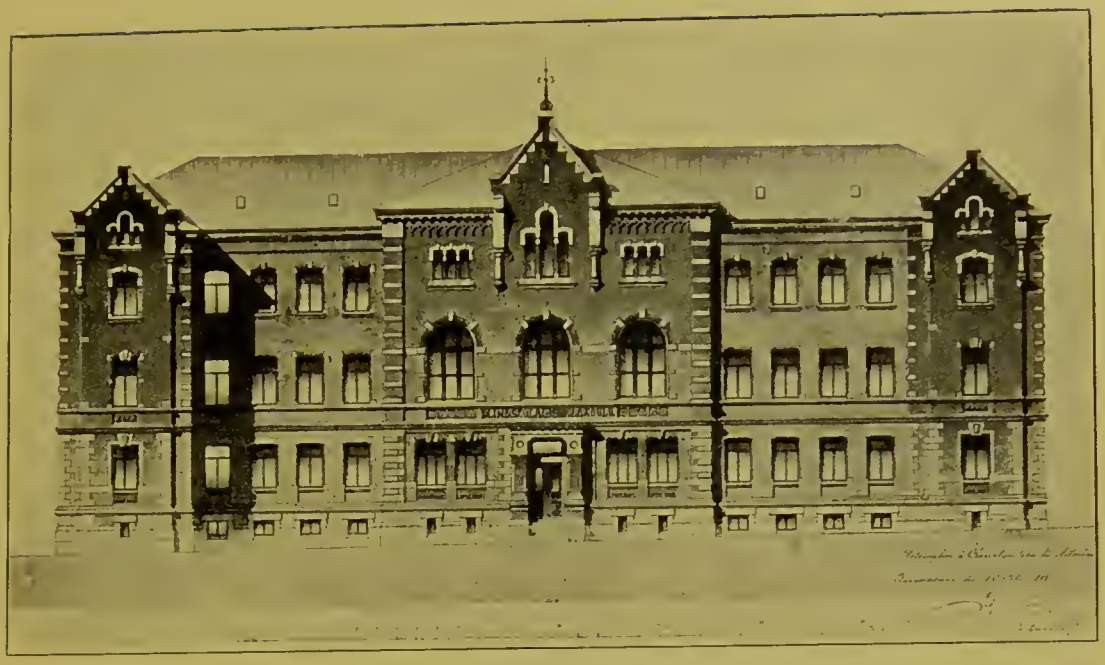
Note. Where two numbers of figures meet in the same column the preceding indicate number of hours for male pupils, the succeeding number of hours for female pupils.

The order of the day and the meals are the same as in the school for Deaf and Dumb. It may be added, however, that in the trade-divisions of the Blind School the practical work is continuing all the day, interrupted only by hours of rest and intellectual lessons.

Pupils of Blind Schools are almost all residentials. However, parents may, if they desire, board their children at their own expence. The care of those non boarders trawelling to and from school, does not concern the establishment.

All Special Schools, instituted by the Government, are provided with their own buildings erected during the last 12 years.

The pavilion system has almost been everywhere adopted as follows:

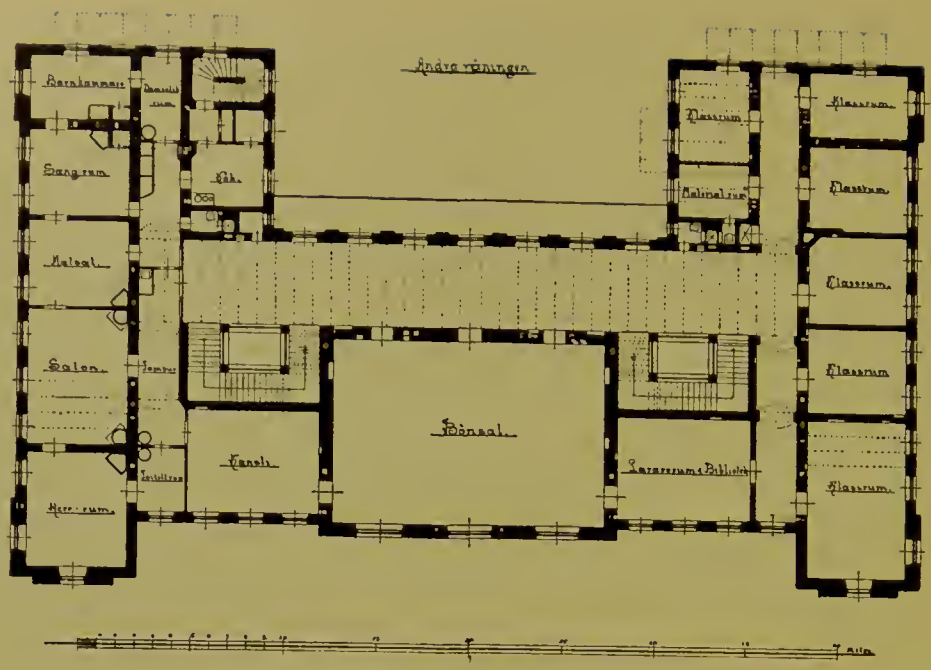


School for Blind. Helsingfors.

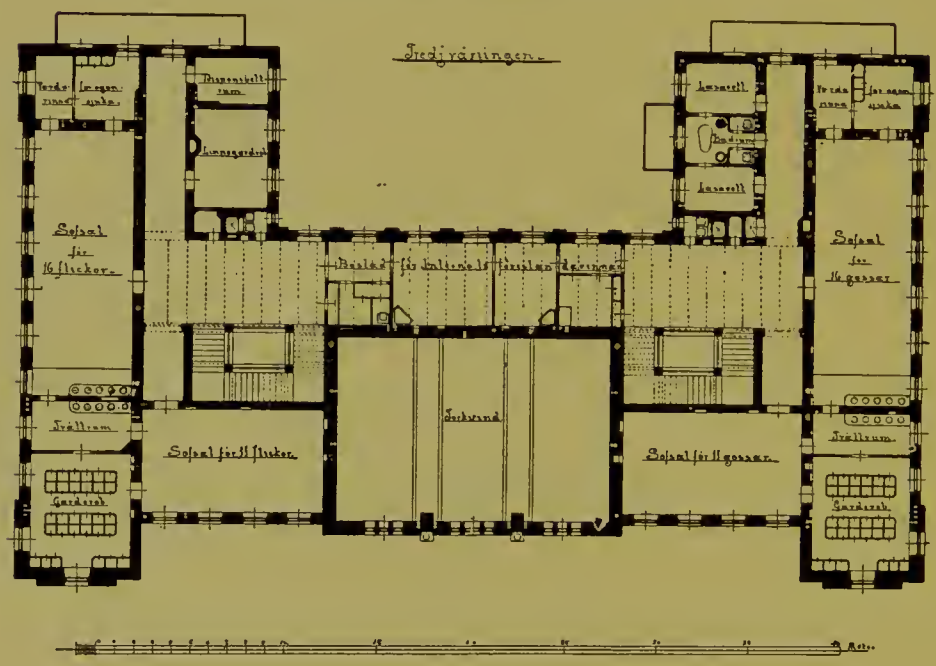
School for Blind. Helsingfors. I Floor

School building, containing all the rooms necessary for instruction, in some establishments also lodgings for the head master.

House for residentials containing bed rooms, parlours and washing room for the pupils, sickroom, lodgings for the landlady and servants and, in many cases, also dining room, kitchen and pantries.



School for Blind. Helsingors. II Floor.



School for Blind. Helsingfors. III Floor.

House for the head master, if there is no lodging in the school building.

Household building with kitchen, pantries, dining room etc. if there are no localities for those in the house for residentials.

Baking house, Laundry and Bath rooms.

Outhouses containing store rooms, stable, wood shed etc. as well as privies for the pupils and servants.

With one exception all the schools enjoy a free site at any open place. The buildings are mostly erected in one or two stories, the former of timber, the latter of brick, or the lower story of brick, the upper one of timber.

In most schools the class- and other school rooms are placed on each side of middle corridors. The School for Deaf and Dumb in Borgå and other schools for residentials are constructed with side corridors.

Ventilation is arranged partly by ventilators through the walls and stoves, partly by a special system of ventilation.

The heating is done by means of stoves, except in the school for Blind in Helsingfors, where central air heating is in use.

The artificial lighting in all these establishments is electric light.

The cleaning depends upon the respective locality. Most establishments are served by sewers.

The class-rooms are spacious, offering to every pupil 3 to 4 meters of floor-space.

Only desks with sliding lids are used in the schools. Seats in the Schools for Deaf and Dumb are placed in segments.

The school hygiene is relatively well observed, all establishments having school doctors intrusted with the superintendence of the general state of health within the schools. The schools possess smaller, isolated infirmaries and bath houses. Warm baths (Finnish vapour baths) are served every week to boarders and non boarders. Halls for gymnastics with necessary outfit are at disposal. Separate dressing rooms and lavatories adjoin the gymnastic halls. Respective exercises are directed by trained teachers, male and female, who conduct the pupils' play during leisure and holidays. In the school gardens there are play grounds. Sporting is encouraged by competition. Among sports, in favour with the pupils in the schools for Deaf and Dumb, may be mentioned different games of ball in summer, skating and skiing in winter.

The school year begins on the 1:st of September, continuing, after vacations of 3 $^1/_2$ week at Christmas and six holidays at Easter, until the 31:st of May, when the pupils go home for their summer holidays. Most of the pupils pass these at home, but such as have no homes or are in want of special care, are permitted to remain under protection of

the establishment and put into holiday camps, surveied by the cointendents of the school.

The instruction, as well as all materials for instruction, in the Special Schools is free of cost. For lodging, board and care an annual fee is paid, which, for Deaf and Dumb is fixed at 200 marks (£ 8) and for Blind, at 250 marks (£ 10).

A reduction or exemption from this payment may be granted to poor pupils by the Inspector of the Special Schools. Most pupils of the establishments also get this advantage. Assistance in clothing is afforded by the school or out funds belonging to it.

Pupils of Special Schools travel, with their accompanying guardian, by rail and on most steamers without paying any fare.

The number of deaf and dumb persons in Finland was, on January 1:st 1902, for which date the last statistics were published, 3,088, whereof 1668 men and 1420 women. The number of Deaf and Dumb thus corresponding to 17 ‰ of the population. Of the total number of Deaf and Dumb 586 children were of the school age. Coresponding numbers for the Blind: 2,297; 0,87 and 143; and for the Feeble-minded 3,494, 1,34 and 569.*)

At present there are in Finland 9 schools for Deaf and Dumb and 4 schools for Blind.

Schools for Feeble-minded.

At present Finland has only one state school for 60—70 feeble-minded children. But in greater towns there are help-schools, belonging to the people's schools, for intellectually undeveloped children.

Duration of teaching is in accordance with the mental condition of the pupils, going on, as a rule, for ten years. The classes are varying, i. e. the pupils are distributed in classes and divisions, according to their abilities for partaking of

*) The number of Feeble-minded must be considered in a high degree unreliable.

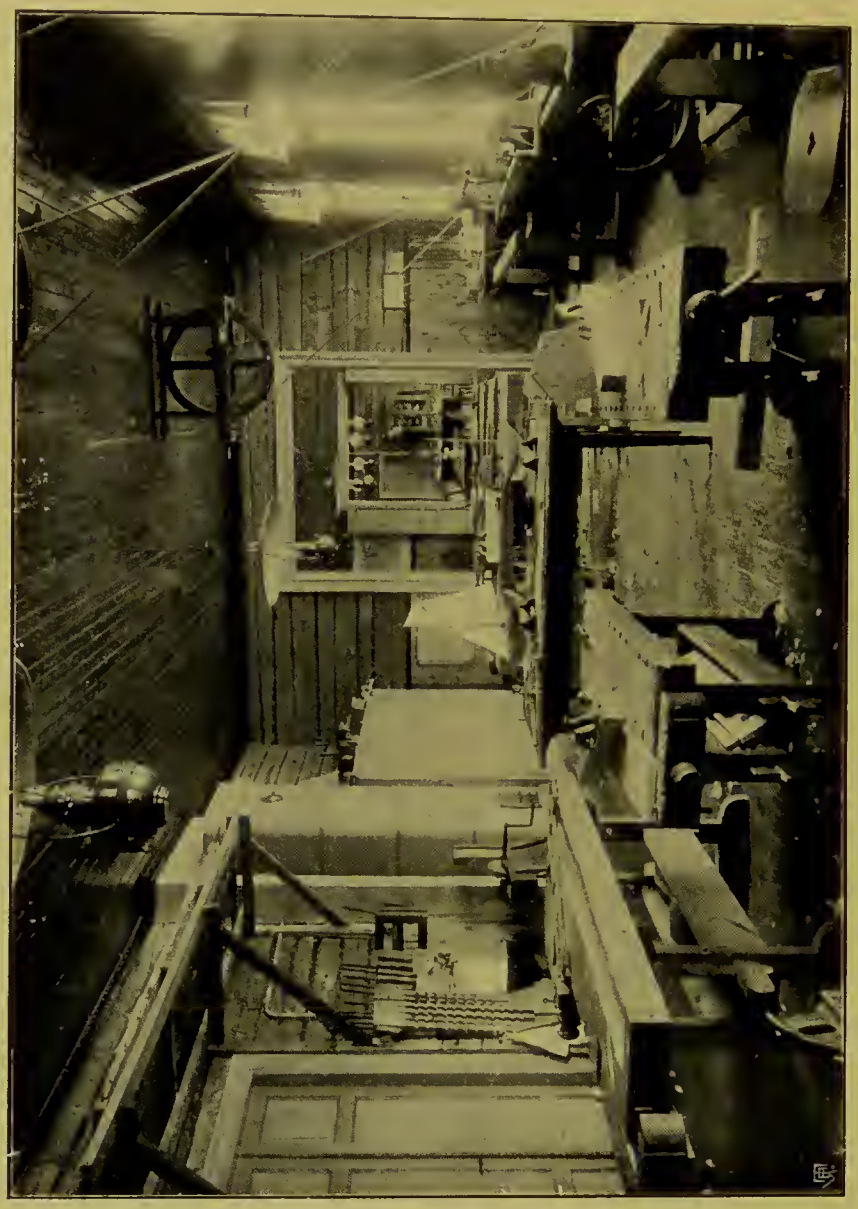
instruction. Great attention is paid to practical works. Pupils in the state school are especially trained to husbandry on the vast farm of the establishment.

Schools for Deformed.

All establishments for the Deformed have been originated by private initiative, but they get annual subsidies from the Government. The largest and oldest institution of this kind in Finland is the *Industrial School and Home for Deformed* in

Workshop in the school for deformed. Helsingfors.

Helsingfors, maintained by the Union for assisting the Deformed. This establishment, to which is adjoined a residential school for about 70 pupils, imparts, besides people's school teaching, instruction in all trades suitable to the deformed,



Workshop in the school for deformed. Helsingfors.

such as female handwork, joinery, shoe making, bookbinding sewing of clothes, etc. Of great economic importance for this establishment is their manufacturing of surgical bandages of celluloid, intended not only for their own wants but also for sale all over the country. An orthopædic policlinic is combined with this establishment, managed by a leading specialist.

School for deformed. Helsingfors.

School for deformed. Helsingfors.

In the trades lots of deformed find a remunerative occupation.

Some time ago said institution was enlarged with a division for deformed children of the age of 4 to 10 years and furnished with a surgical section. There are three more establishments of this kind in Finland.

School for deformed. Helsingfors.

Beside the unions and associations, above mentioned, the following societies are operating on the behalf of Special-Schools:

The Union for the benefit of the Deaf and Dumb, (Föreningen till förmån för döfstumma) with central board in Åbo and branches inHelsingfors, Borgå, Kuopio, Jyväskylä, East Carelia, Jacobstad and Uleåborg.

The Alliance of the Deaf and Dumb of Finland, (Finlands döfstumförbund) with central administration in Helsingfors and branches in Åbo, Borgå, Viborg, Tammerfors, Vasa, Uleåborg and other places.

Union of Deaf and Dumb of Helsingfors (Döfstumföreningen i Helsingfors) and corresponding associations in most of other towns and country places.

The Friends of the Blind (De blindas vänner) in Helsingfors.

Finally it may be added, that all Special establishments of Finland have their particular organ in the *Journal for the Special-Schools of Finland* (Tidskrift för abnormskolorna i Finland), in which questions touching Special-Schools are being discussed and their respective interests vindicated.

Valter Forsius.
Inspector of Special Schools.
Member of the General School Board.

Exceptional Children.

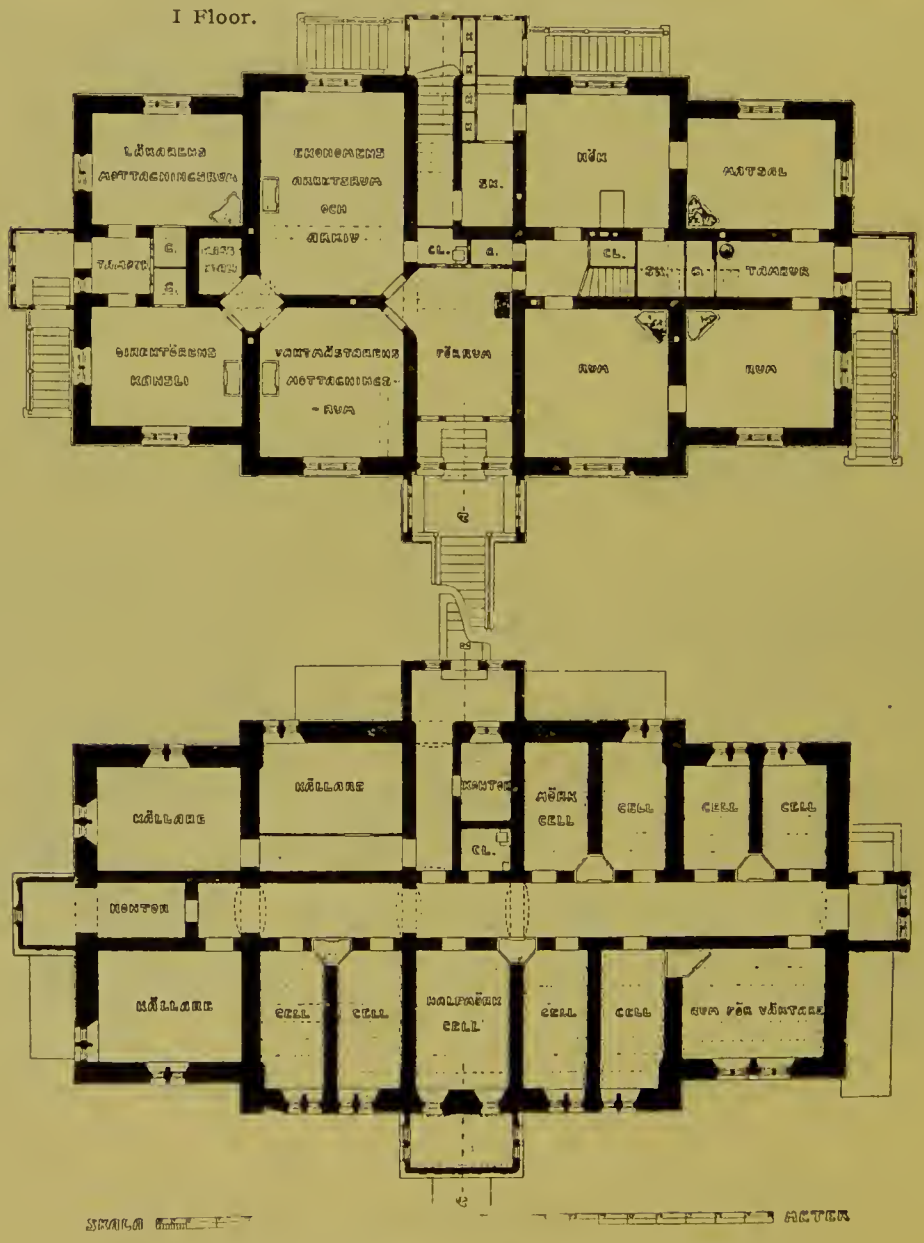
According to Laws of Finland, every parish is obliged to take care of its Poor and Orphans. The People's School Regulations of 11 May 1866 enjoins also town authorities to give children above 12 years, who for one or other cause cannot go to school during usual hours, an opportunity of regular schooling at other convenient time, at least twelve hours a week, and, in particular, to look to such older children, whose instruction has been neglected, that they obtain some education.

Thus in Finland all preventative measures for hindering the ruin of destitute youths are incumbent on the respective

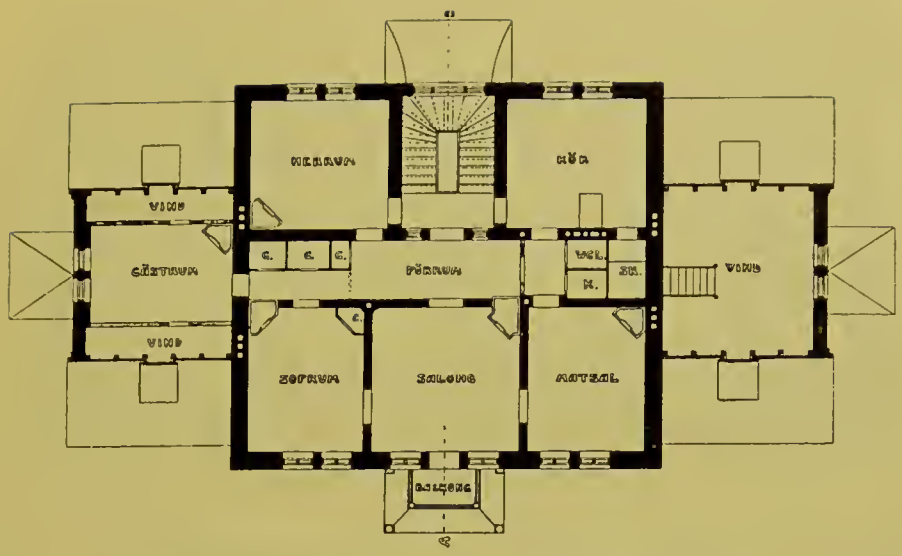
Scheme. School for Exceptional Children. Kylmälä.

School for Exceptional Children. Kylmälä. Administration

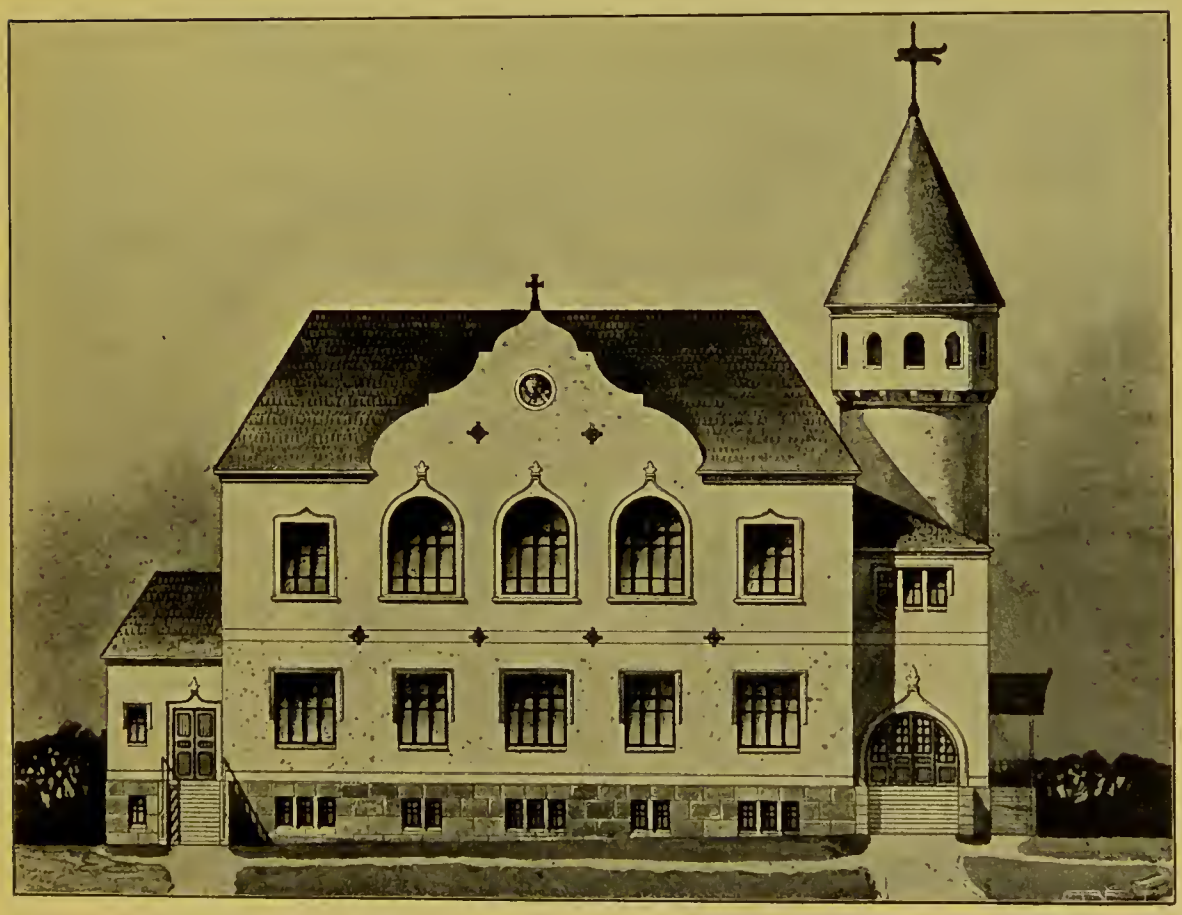
I Floor.



School for Exceptional Children. Administration. Ground Floor.



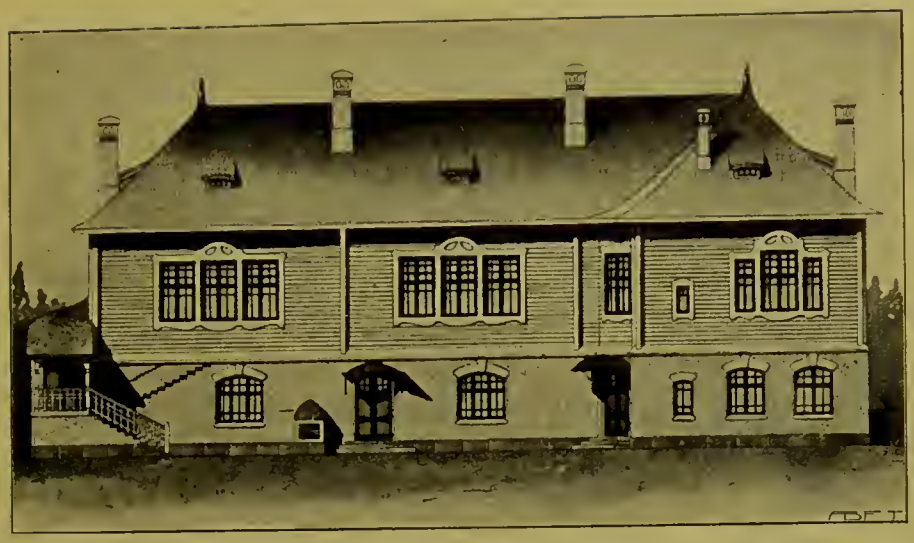
School for Exceptional Children. Kylmälä. Administration.



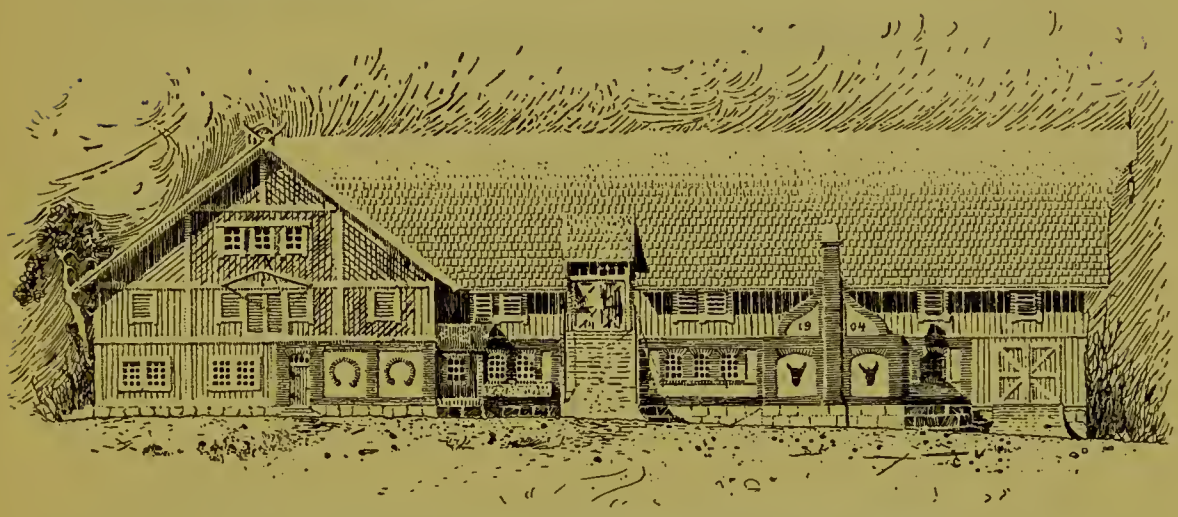
School for Exceptional Children. Kylmälä. Household building.

School for Exceptional Children. Kylmälä. Household building.
I Floor. Ground Floor

School for Exeptional Children. Kylmälä. Hauschold building. II Floor.



School for Exceptional Children. Kylmälä. School Building and Workshops.



School for Exeptional Children. Kylmälä. Cowhouse and stable.

Parish. On the other hand, the care of minor criminals is administered by the Government. In accordance with the Penal Law of Finland, of 19 December 1889, children, having attained 7 but not 15 years, may be, for culpable act, put into a reformatory school. By the regulations of the same date regarding execution of punishment, that children, ordered to be put into a reformatory, shall, as soon as the verdict has come into act, be transferred into said school without delay, said child however to be, as far as possible, delivered by the School unto a suitable private family in order to be educated, unless it be, with regard to its age, vice or other cirumstances, judged necessary to keep the said child within the establishment.

For minor male transgressors of 7 to 15 years of age Government has instituted two such Educational Establishments, of which *Koivula,* in the parish of Tusby, disposed according to the barrack system and destined for 100 pupils, was opened 1891, and the other, *Kylmälä* or *Kotiniemi,* in the parish of Ruovesi, disposed according to the pavilion system and destined for 120 boys, was opened 1905. A corresponding establishment for girls, *Vuorela,* in the parish af Vichtis, was opened in 1895 and contains 60 residentials. All these educational establishments, for which regulations were issued in due order, are equivalent to the Reformatory Schools in England, but are, as mentioned, Government institutions. Not only minor transgressors may be taken in, on the verdict of a Tribunal, but also, as far as there is space, other children having perpetrated greater vice, may, at the request of a vestry-board or guardian, be received for care and education.

Most of the direct measures for the protection and saving of minors, in Finland, have been realised by private persons and charitable institutions. The oldest and largest, is the *Union for the education of orphans* (Föreningen för värnlösa barns uppfostran) the regulations of which were confirmed 16:th of April 1870. The motive of this union's foundation was the disastrous famine of 1867 and 1868, during which a great many children lost their parents or were left helpless, when their supporters and home parishes had no means to feed them.

During the last years the Government has contributed 31,000 F. marks (£ 1,240) annually, which amount, added to interest of the Union's funds, has been spent on the maintenance of Educational Establishments of said nature and asylums in the different provinces, of which the following are in operation:

1) *Asylum of Mörskom,* opened 1870 and destined for 30 boys boarding in adjacent farm houses and going to a school, specially established;

2) *Käyrä,* educational establishment in the parish of Brunkala, opened 1877, offering room for 45 residential boys.

3) *Koivikko,* educational establishment in the rural parish of S:t Michel, opened 1870, may receive 30 residential boys.

4) *Kehvo,* educational establishment in the rural parish of Kuopio, opened 1870, providing room for 24 boys;

5) *Likkolahti,* Asylum near the town of Kuopio, opened 1870, may take in 24 girls;

6) *Home School of Vasa,* in the parish of Pedersöre, reorganised 1902, with room for 25 boys;

7) *Särkelä,* educational establishment in the parish of Uleåsalo, founded 1871, with room for 15 boys;

8) *Asylum for orphan Girls,* in the parish of Limingo, founded 1871 and intended for 18 girls.

The operations of the Union has been conducted by a Central-Commission in Helsingfors, of 9 members, in which the Governor General is president. Further, in every country-town a branch committee also of 9 members is sitting, presided by the Governor.

Henrik Ståhl.
Secretary of the Education Committee.